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The Role of Family Endorsement in Venture Creation and Sustainability

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I am submitting herewith a dissertation written by Thomas Daniel White entitled "The Role of Family Endorsement in Venture Creation and Sustainability." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

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The Role of Family Endorsement in Venture Creation and Sustainability

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The views expressed in this dissertation are those of the author and do not reflect the official policy or position of the United States Air Force, Department of Defense, or the U.S. Government.

DEDICATION

Sola Gratia

Sola Fide

Solo Christo

Soli Deo Gloria!

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This doctoral program has been a journey like no other in my life. For much of the way it has been extremely difficult—on the best of days. I would not have made it past the first semester, yet alone finished, without the grace of God and some magnificent people that he has placed around me. First and foremost, my wife, Cynthia, who never stopped encouraging me while raising three young children and adding a fourth. She not only created the space for me to work, but she edited papers, offered suggestions, and provided invaluable feedback all along the way. Her steadfast love and devotion was a tremendous gift, and our marriage is stronger for having done this. Our four beautiful children, Annelyse, Eli, Caleb and Elizabeth, brought an enduring joy and purpose to each day that put the hardships of a doctoral program into perspective. Many have asked how I did it with four kids. The truth is, I have no idea how I would have done it without them.

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"Unattainability. The most intense joy lies not in the having, but in the desiring. The delight that never fades, the bliss that is eternal, is only yours when what you most desire is just out of your reach."

— C.S. Lewis.

ABSTRACT

Entrepreneurship research has shown that family social support is an important factor in an entrepreneur's venture creation and sustainability efforts, yet little is known about the nature and impact of family processes that occur prior to venture start, or how early endorsement of a venture impacts the entrepreneur. These processes are important to consider, because they may facilitate or inhibit ongoing family social support and influence the entrepreneur's venture creation and sustainability decisions. Utilizing a family systems theoretical framework, I draw on theories of self-perception, social support and conservation of resources to address three issues. First, I introduce the construct of family endorsement and test how family endorsement of an entrepreneur's decision to start a new venture impacts venture creation and sustainability. Second, I hypothesize that the relationship between endorsement and sustainability is contingent upon how business outcomes, including household standard of living changes and extreme work hours, impact the family. Finally, I test whether family endorsement has short-term effects on the entrepreneur's method and timing of venture creation. Utilizing a mixed-methods design, I address these phenomena with nationally representative samples of established and aspirant entrepreneurs through a field survey and two experiments. Findings suggest that family endorsement impacts ongoing family social support and is an important consideration for an entrepreneur. This dissertation contributes to research at the intersection of entrepreneurship and family by introducing family endorsement and examining how pre-venture family processes impact the venture creation and sustainability efforts of entrepreneurs.

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CHAPTER 1. INTRODUCTION

Entrepreneurs create and sustain businesses within a complex web of relationships, one of the most important being their family (Aldrich & Cliff, 2003; Edelman, Manolova, Shirokova, & Tsukanova, 2016). Close family relationships are fundamentally important to human existence, providing individuals a source of security, identity, purpose and support. When faced with important life decisions—whether professional or personal, and during periods of individual or collective turmoil and stress, whether it be fear of change, feelings of rejection, failures in achievement, or threats of loss—people often turn to family for approval, advice and the necessary support to persevere (Collins, Ford, Guichard, Kane, & Feeney, 2010).

The domains of family and work are tightly interconnected, and perhaps even more so in the context of starting and sustaining a new business (Jennings & McDougald, 2007). In contrast to traditional employment, business venturing places an entrepreneur's family in the front row seat to a drama often characterized by extreme demands and the associated highs and lows of creating and sustaining a business. However, family members are rarely afforded the luxury of passive observation, but are instead hurled into the plot line, actively sharing in and experiencing the firsthand effects of the venturing process. These business-driven effects can manifest in drastically different ways, from financial windfalls to financial crises, from more time with family to almost no time for family. Accordingly, the family's willingness and ability to absorb the external shocks—positive or negative—emanating from the venture environment and the support and encouragement they offer the entrepreneur in-turn may tip the delicate balance towards keeping the doors open on a business or deciding to shut it down (Hsu, Wiklund, Anderson, & Coffey, 2016). Drawing on the important role of family and the inherent demands of business creation, the overarching question driving this dissertation was—how does family

endorsement of an entrepreneur's decision to start a new business impact the entrepreneur's venture creation strategy and ultimately their desire to sustain the business?

Before moving forward, it is important to define what is meant by family and family endorsement. In this dissertation, family is defined as two or more people related by blood, adoption, marriage or other relationship similar to marriage, such as a life partnership (Jennings, Breitkreuz, & James, 2013, p.472). However, family may also include those outside of these boundaries provided that they are considered by the entrepreneur to be part of a "group of intimates who generate a sense of home and group identity, and who experience a shared history and a shared future" with the entrepreneur (Koerner & Fitzpatrick, 2002, p.71). In particular, I focus on close family members, who are the unique sub-group of family members who play an active role in the entrepreneur's life. This view of family incorporates both a structural and transactional view of family consistent with current conceptualizations across sociology and anthropology (Aldrich & Cliff, 2003; Brannon, Wiklund, & Haynie, 2013; Koerner, Fitzpatrick, & Vangelisti, 2004).

I define family endorsement as one or more family members' agreement with or approval of an entrepreneur's decision to start a new venture, prior to venture creation. Entrepreneurs are individuals embedded within families (Aldrich & Cliff, 2003), either acting in harmony or in conflict with the other members of their family (Heck & Trent, 1999). Examining the pre-venture creation process of family endorsement begins to unpack the role that family members play at one of the earliest phases of the entrepreneurial process, and how their endorsement at this early juncture influences the creation and sustainment of new ventures.

New businesses are created and existing ones are sustained every day by entrepreneurs in a variety of family contexts, with and without the endorsement and concomitant support of

various family members. It is argued here that endorsement precedes support, is a distinct event, and is more temporally bounded than the role of ongoing support. At the same time, businesses close every day, for reasons beyond business performance. These reasons often originate in the family context (DeTienne, 2010), impacting the entrepreneur and their business. Consequently, the process of family endorsement becomes important to explore because short- and long-term effects of endorsement may impact the entrepreneur's venture creation strategy, ongoing family support for the business once it is created, and the entrepreneur's subsequent desire to keep the business going.

Research Questions and Objectives

Research Questions

This dissertation examines how family endorsement of an entrepreneur's decision to start a new business impacts the entrepreneur's venture creation strategy and ultimately his or her desire to sustain the business. Within this overarching research theme, this study addresses three specific questions: First, in the short-term, does family endorsement impact the entrepreneur's venture creation strategy—specifically, the method (full- or part-time status) and timing of venture creation? Second, does family endorsement impact ongoing family support for the entrepreneur and the business once the business is created, and is this support contingent upon how certain business realities impact the family? Finally, does family endorsement impact the long-term sustainability of the venture (i.e., the entrepreneur's business closure intentions)?

Research Objectives

In line with these research questions, the objectives of this research are threefold:

- Introduce the pre-venture process of family endorsement of an entrepreneur's venture creation decision.
- Evaluate the influence of family endorsement on two stages of entrepreneurship—venture creation and venture sustainability.
- Integrate family systems theory with theories of self-perception, social support, and conservation of resources to better evaluate the dynamic and recursive influence of family and business.

Problem

The role of family support in entrepreneurship has garnered increasing scholarly attention since Aldrich and Cliff (2003) highlighted the interwoven reality of entrepreneurship and family (e.g. Powell & Eddleston, 2013; Werbel & Danes, 2010). I consider entrepreneurship to be "the activity of organizing, managing, and assuming the risks of a business or enterprise" (Shane, 2008 p.2). Evidence from multiple streams of literature, including management, entrepreneurship and family business, has found that family-related phenomena impact important venture outcomes including performance and survivability (Edelman et al., 2016; Van Auken & Werbel, 2006; Werbel & Danes, 2010).

While much of the research in family entrepreneurship has focused on how family resources (e.g., human, financial, social capital) influence venture success, there has been little attention given to family processes—goal alignment, commitment, communication, conflict-management (Jiang & Munyon, 2017)—especially those that occur prior to venture creation. These family processes are important to consider because they not only facilitate the flow of resources between the family and the business (Danes, Lee, Stafford, & Heck, 2008), but also establish the rules that govern future transactions. Put simply, family resources are only as good

to entrepreneurs as the processes that make them available for business use. For example, a family member may have considerable financial assets, but is unwilling to offer access to those resources for venture creation or sustainment due to disagreements or conflict regarding the business or other family issues. Family processes are important both because they facilitate resource transfer, and also because they may serve to establish relational rules that govern the ongoing operation of the family and its response to environmental stimuli (White, Klein, & Martin, 2015).

Challenge

This research answers the call to expand our understanding of the micro-foundations of entrepreneurship (Shepherd, 2015; Shepherd, Williams, & Patzelt, 2015) by advancing research examining entrepreneurship as a series of decisions (McMullen, 2015) or interlaced activities (Wood, Williams, & Drover, 2017). This dissertation adds the family dimension and the recursive influence of business and family as an important dimension in this decision-making process. However, it is important to acknowledge the nascent state of research at the intersection of family and entrepreneurship, the relatively small pool of researchers engaging the relevant questions, and the limitations of sampling and methodology. Questions in this area must often analyze relationships among multiple family members with outcomes across domains. Furthermore, research investigating family process must consider the recursive influences between business and family over time, and not just linear cause-effect relationships. This is extremely challenging considering the need to measure variables across multiple people in one family system and over long periods of time.

Gaps and Limitations

Scholars have often unnaturally separated the institutions of family and business for conceptual expediency at the expense of a more accurate and complete explanation of a particular phenomenon. However, research in family entrepreneurship brings these two institutions back together, enabling a more comprehensive explanation of business creation and sustainability. Considering the nascent state of the field, there are certainly limitations. First, existing theory at the intersection of family and entrepreneurship presents a host of important and interesting propositions, but more theorizing is needed. There is very little theorizing about the role of family in pre-venture negotiations. Second, there is a general lack of empirical work examining the recursive influence of business and family. Empirical work has only begun to explore the complex relationships presented in existing theory (Hsu et al., 2016; Powell & Eddleston, 2016). The multifaceted nature of family relationships and business makes this research challenging and complex, but important nonetheless.

Research Agenda

Theoretical Underpinnings

Relationships and relationship history influence behavior, and social relations play an important role in individual adaption (Sroufe, 1989). Thus, from a systems theoretical framework, the pre-venture inter-personal process of family endorsement is important, because it may create a set of relational rules that influence: (a) the method and timing of business creation; (b) the family's ongoing support of the entrepreneur after the business has started; (c) the way in which environmental shocks created by the business are handled by the family; and (d) the affective state and business closure considerations of the entrepreneur.

Methodological Approach

Utilizing a three-study design comprised of a field survey and two experiments, I address the role of family endorsement and its impact on venture creation and sustainability with nationally representative samples of established and aspirant entrepreneurs. The results from a single study must be viewed with caution, because any conclusions regarding the validity and generalizability of findings are inherently limited (Tsang & Kwan, 1999). Furthermore, the interpretation of results is constrained by the particular methodology utilized and any sampling error. Tailored research designs facilitate more robust assessments of research findings across contexts.

Study 1 incorporates a field survey of entrepreneurs designed to investigate the pre-venture influence of family endorsement on ongoing family emotional support and venture sustainability. Hypotheses are tested from field survey data through a moderated mediation PROCESS model (Hayes, 2013)— also considered a first stage moderation (Edwards & Lambert, 2007)—of ongoing family emotional support after business start. I also examine environmental factors that serve as boundary conditions in the first stage of the model, including standard of living changes and work hours. These factors emanating from the business may influence the hypothesized relationship between early endorsement and ongoing emotional support from family members.

Although field survey data are useful in understanding criterion-related effects associated with the variables in this dissertation, there are inherent limitations. For instance, the field survey asked respondents to consider different time periods when addressing family endorsement and support. This provides potential insight into causal relationships, but the issue of response bias challenges the validity of these conclusions (Podsakoff, MacKenzie, & Podsakoff, 2012).

Additionally, any study utilizing survey data must consider the problems of non-response bias, and the innate limitations that retrospective designs carry (Podsakoff et al., 2012). The use of constructive replication offers the ability to enhance the validity of the relationships identified in the field survey, and establish clear causality needed to test theory (see Lykken, 1968). Thus, the primary purpose of the two experiments is to surmount the inherent limitations of the field survey data already collected and to aid in establishing causality in the underlying relationships examined in the field survey.

In Study 2, I utilize a true experiment and a sample of aspirant entrepreneurs to determine the role of family endorsement and entrepreneurial uncertainty on venture creation strategy decisions. The set of hypotheses in this experiment incorporates two dimensions of venture creation: the timing (starting sooner versus later) and the method (starting full- or part-time).

In Study 3, I utilize a true experiment and a sample of entrepreneurs inside the first 12 to 72 months of business creation to explore the roles of family support, work hours and standard of living changes on venture sustainability. The set of hypotheses in this experiment incorporates two dimensions of sustainability: the entrepreneur's intentions to close the business and the entrepreneur's affective state.

Implications and Contributions

Implications for Research

This dissertation capitalizes on at least three opportunities to expand theory in entrepreneurship research. First, current theory does not fully consider the important role of family process, and in particular, those that occur prior to venture creation. This dissertation supplements family systems theory with theories of self-perception, social support (Halbesleben,

2006) and conservation of resources (Hobfoll, 1989) to explain how family processes are important factors in the sequence of decisions and interlaced activities that characterize critical parts of the entrepreneurial process (Shepherd et al., 2015; Wood et al., 2017)—namely venture creation and sustainability.

Second, I look specifically at how family endorsement impacts an entrepreneur's business closure intentions (i.e., sustainability) through the ongoing role of emotional support from family members. Emotional support has consistently been a non-significant finding in studies of family support for entrepreneurs that focus on venture performance outcomes (Eddleston & Powell, 2012; Powell & Eddleston, 2013). However, I intend to show that while emotional support may not be a strong indicator of business performance, it is an important factor in the emotional state and closure intentions of entrepreneurs. This brings clarity to current research involving emotional support, and extends family systems theory and theories of social support in family entrepreneurship research to enhance our understanding of long-term business impact.

Third, this study builds theory and understanding of the important influence of business on family. Current family entrepreneurship literature fails to adequately consider how venture outcomes influence the family (Jennings et al., 2013). Family and business interact in a recursive fashion over time as resources move across domains with both beneficial and detrimental consequences (Westman, 2001). Understanding this business-to-family influence may offer important insight into theoretical mechanisms that threaten or undo the business, the family, or both when left unchecked.

Implications for Practice

These findings have important implications for practice. Currently, we have very limited data to support how pre-venture family processes involving an entrepreneur and close family members impact any venture related process. This is surprising since these are two critical social and economic institutions in society—both with high failure rates (Shulman & Connolly, 2013). Entrepreneurship potentially places new and rapidly changing demands on the individual and their family relationships. New skills often need to be learned, adaption is necessary, and broader issues relating to and stemming from the venture need to be negotiated by the family. It is through individual deliberations in concert with discussions and resolutions with family that entrepreneurs make decisions prior to business start that impact business and relationship success in the long-term.

The practical implications of this study are also important, and small business consultants and family therapists can leverage these findings when diagnosing business or relationship difficulties. Although evidence is limited on the dynamic nature of family and business systems, theory and existing evidence point towards reciprocal effects between these domains. Problems presented in one domain may have underlying causes in the other. This may help practitioners diagnose and address core problems instead of addressing only the problems manifesting on the surface.

Finally, entrepreneurship support programs have tended to concentrate on practical business skills that equip entrepreneurs to start and sustain successful ventures. Although these are beneficial, there is little if any training focused on family factors that constrain or enable an entrepreneur to start and sustain their business more successfully. This research serves to redirect attention towards another set of factors that are also important, namely the relational

processes with family members and identifying which family relationships may be most crucial to business success (Shulman & Connolly, 2013).

Implications for Policy

Policy makers may be able to use results from this study to fill critical knowledge gaps that ultimately: shape policy and legislation, enhance existing entrepreneurship support programs, or create new initiatives that enable more entrepreneurs to create thriving sustainable businesses while maintaining healthy family relationships. Every entrepreneur must start a business for the first time, and most do so within the context of valued family relationships. The institutions of family and business are two of the strongest in society and have significant effects on individual behavior and decision-making. Thus, policy makers should consider funding programs through Small Business Development Centers and other organizations that prepare entrepreneurs to meet market challenges, and enable them to meet relationship challenges that emerge during business creation. For example, one practical step is guiding entrepreneurs in important points to discuss with family members prior to launching a business. Perhaps more importantly, these training programs can include the relevant family members in business planning efforts and preparation for the demands of new business creation. Based on the research and theorizing in this dissertation, training programs that help families establish common goals for the business and build healthy communication patterns may be two of the most important objectives on which to focus. These processes may unlock the critical resource stocks necessary to facilitate business success and sustainability and also maintain healthy relationships and achieve desired family outcomes.

Organization of Dissertation

The remainder of this dissertation is organized into five chapters. In Chapter 2, I conduct a literature review and focus on three main components of existing knowledge that contribute to this research—the role of family in entrepreneurship, the concept of endorsement and four theories driving the models tested. In Chapter 3, I draw on these four theories to develop 13 hypotheses related to family endorsement and the impact that it has on the entrepreneur's venture creation and sustainability intentions. Chapters 4 and 5 are organized according to each of the three studies introduced previously—Study 1 (Field Survey), Study 2 (Experiment 1), and Study 3 (Experiment 2). In Chapter 4, I describe the research methodology used in each study and the specific hypotheses being tested in that study. In Chapter 5, I provide the results from each study and the associated hypotheses. Finally, in Chapter 6, I discuss the results of the research, explain how my research findings contribute to both theory and practice, and offer insights for future research.

CHAPTER 2. LITERATURE REVIEW

This chapter reviews several areas of research that are important to the objectives in this dissertation—the role of family in entrepreneurship, the nature and dynamics of endorsement, and four theories driving the models tested in this research. First, I survey research at the intersection of family and entrepreneurship and provide evidence for what is already known about the influence of family on entrepreneurship. Second, I introduce the concept of endorsement and build from its use in marketing and political science to explore its application and influence in entrepreneurship. I also provide ideas and challenges regarding the measurement of endorsement. Finally, I introduce family systems theory and three supporting theories—social support, self-perception and conservation of resources—in order to lay the theoretical groundwork for the hypotheses in Chapter 3.

The Role of Family in Entrepreneurship

In the early stages of development, the business in many ways is simply an extension of the entrepreneur (Lumpkin & Dess, 1996), because it is their personal resources (human, financial, and social) that are most important to drive, grow and sustain the business. Consequently, business creation often permeates all facets of the entrepreneur's life, and close family relationships may exert considerable influence on venture start-up and sustainment (Aldrich & Cliff, 2003) as relationships are directly impacted by and influence the entrepreneur's decision-making and behavior. This review focuses on what we know about close family relationships and how they influence the venture environment.

In order to find literature most relevant to this topic, I started with a seminal conceptual paper from Aldrich and Cliff (2003), which lays out a case for a family embeddedness

perspective in entrepreneurship research. It is widely held as a foundational paper for examining family influence as a critical variable in entrepreneurship. I surveyed all the references in this paper to determine if another paper should serve as a baseline, but this paper held as the most relevant and widely cited piece. Following this, I examined the title and abstract of more than 1000 citations of Aldrich and Cliff (2003) into 2017. I narrowed this citation list to 249 papers that examine business and family variables. I further refined this list to 52 papers addressing family relationship and entrepreneurship outcomes (e.g., Danes, Stafford, Haynes, & Amarapurkar, 2009; Olson et al., 2003; Powell & Eddleston, 2013; Van Auken & Werbel, 2006; Werbel & Danes, 2010).

Family Embeddedness Perspective

The family embeddedness perspective calls for "researchers to include family dimensions in their conceptualizing and modeling, their sampling and analyzing, and their interpretations and implications" in entrepreneurship research (Aldrich & Cliff, 2003: 574). Research from a family embeddedness perspective reasons that entrepreneurs are not isolated decision-makers, but rather, are embedded in networks of relationships. Consequently, these networks of social relations theoretically influence entrepreneurial decision-making. Aldrich and Cliff (2003) contend that researchers should pursue a more accurate and complete understanding across the phases of entrepreneurship by linking the "unnaturally separated" social institutions of family and business. Doing so will offer richer insights and perspective on entrepreneurship to researchers, educators, and entrepreneurs.

The family embeddedness framework (Aldrich & Cliff, 2003) is comprised of three main categories: family system characteristics, the venture creation process, and new venture outcomes. Family system characteristics are organized into three groups: transitions (i.e.,

marriage or parenthood), resources, and norms, attitudes and values. Resources fall into categories of financial, human, social, physical, informational and time (Hobfoll, 1989). Norms, attitudes and values consist of norms regarding family member interaction, attitudes toward work and family, and both instrumental and terminal values.

These family system characteristics interact to influence the venture across four stages: opportunity recognition, the launch decision, resource mobilization, and implementation of founding strategies, processes, and structures. Family system characteristics can influence each of these stages in different ways, and certain factors may become more or less important depending on the process in focus. Venture creation processes lead to new venture outcomes of survival, objective performance, or subjective success, which in-turn circle back to influence family system characteristics, one of the three main categories of the family embeddedness framework.

Aldrich and Cliff (2003) highlight that this framework poses a wide range of important questions. This research effort answers Aldrich and Cliff's (2003: 593) call for further conceptual refinement of these processes by examining "relations within sets of processes and events" as put forth in their model. Thus, I will start with the role of family support.

The Nature and Role of Family Support

Considering the assortment of passive or active roles that a family member may adopt in an entrepreneur's new venture, their support may manifest in a variety of forms. Two of the most well established forms of support are instrumental and emotional (Parasuraman, Purohit, Godshalk, & Beutell, 1996). Instrumental support consists of tangible support from the family member through direct participation in the business, financial support of the business, or the

management of family responsibilities (i.e., child or parental care) that ease obligations for the entrepreneur inside the family context (Parasuraman et al., 1996). Emotional support is less tangible, but can be just as important. It often manifests as affection, affirmation, and concern for the entrepreneur's welfare. Emotional support has been given far less attention than instrumental support in the family entrepreneurship literature. However, emotional support is a common denominator across different family structures and is easily accessible to various family members, where instrumental support may be limited by external constraints. While this dissertation evaluates the role of emotional support, this literature review will cover research that has focused on both emotional and instrumental support.

Across academic fields, an overarching theme from research on family support can be categorized into two main perspectives (Van Auken & Werbel, 2006)—work-family conflict (WFC; Beutell, 2007; Greenhaus & Beutell, 1985) and work-family enrichment (WFE; Greenhaus & Powell, 2006). The WFC perspective holds that business and family are inherently in conflict with one another and this conflict inhibits success in each domain. Resources are scarce; therefore, when the entrepreneur's time, energy and money are devoted to business purposes, they become unavailable for the family. Conflict can stem directly from the business, which requires reallocation of these resources, or indirectly when stress from the venture spills over from the entrepreneur to the family. Conflict may also stem from disparate goals between the entrepreneur and other family members with regard to the business, and goal incongruence can lead a family member to actively or passively resist business-related efforts (Jang & Danes, 2013). The second perspective, work-family enrichment (WFE), takes a counter-view to WFC and embraces the idea that family support serves to enhance business performance. This is especially clear when an entrepreneur and family member share common goals for the business.

Goal congruence facilitates the availability and release of important family resources—human, financial, and social—that may serve to enrich both the business and the family.

Both family and work systems are resource intensive, and resource scarcity requires important allocation decisions. In fact, evidence shows that running a small business adds strain in the family context over and above regular employment (Dolinsky & Caputo, 2003). Empirical work grounded in the conflict perspective typically analyzes concepts that increase or reduce this tension. For instance, an entrepreneur's relationship with his or her spouse can serve as a possible buffer to stress emanating from the new business when that relationship reduces tension between the family and business domains. However, the relationship may also be a drain on personal resources, such as time, energy and attention, which can have important implications for the new business because of the tension and conflict prevalent within the relationship.

Opening a new business requires substantial time and energy investments from the entrepreneur, and these new resource requirements may be taken from marriage and family stocks. Family emotional support during this period of readjustment is an effective way to mitigate stress on the entrepreneur from resource conflicts between the business and family and achieve a work-family balance that minimizes stress in both domains. Gudmunson, Danes, Werbel, and Loy (2009) examine the role of spousal support given and received in a dyadic model to predict work-family balance. As expected, spousal reports of support given were statistically significant and strongly associated with the entrepreneur's perceptions of support received for business concerns. However, there was no relationship between support received and work-family balance. Interestingly, when a construct measuring satisfying communication about the business was added, both paths became positive and significant, indicating a mediating effect. That is, "spouse support received" increases satisfying communication about the

business, which increases "work-family balance." However, it is important to note that more satisfying communication in a marriage does not necessarily mean more business-related communication. Furthermore, it seems that there may be a greater chance of satisfying communication when it is not directly tied to decision-making about the business. In a study of women's role involvement in family businesses, Danes and Olson (2003) found that business tension in the couple decreased overall business performance. Wives and husbands both reported higher tensions when the wife was involved in the decision-making aspects of the business compared to wives who were not involved. Their findings showed that tensions developed over clarity of roles, decision-making authority, fair pay and workload. Additional evidence suggested that tension had a threshold at which the functional integrity of the family was greatly impacted. While their theoretical support is strong, a limitation of the research is that they were unable to firmly establish methodologically whether the tension may be a result of poor business performance rather than a source.

In another example from the conflict perspective, Werbel and Danes (2010) found that increased levels of WFC experienced by the entrepreneur and the spouse as a result of starting a new business crossed over to produce strain on the new business. Crossover effects occur when one's work or home stressors cause strain in another individual in the other domain (Munyon, Breaux, Rogers, Perrewé, & Hochwarter, 2009; Westman & Etzion, 1995). Their findings point towards a social contagion type effect, because spousal strain fully mediated the spillover effect between WFC and entrepreneur strain in the business context. This study also indicated that spouses who are committed to the new business might induce additional strain on the new business as compared to uncommitted spouses. This may result from a complex interplay of competing commitments between the business and family domains. However, it also

complements the findings from Danes and Olson (2003) that joint decision-making in the business can create tension. This is also consistent with previous research, which has shown that goal conflict among family members has a negative impact on firm success (Danes, Haberman, & McTavish, 2005).

The enrichment perspective holds that family support enhances business performance. This is a counter-perspective to the predominant conflict view in WFC. Family support that enhances business performance is a function of available resource stocks (financial, human, and social) and the processes by which those resource stocks are made available to the entrepreneur and the business. For example, social support for the entrepreneur from a close family member can provide affective enrichment and increase energy, motivation, and self-efficacy (Powell & Eddleston, 2013), and these individual-level characteristics are important to entrepreneurial success. In spite of the relationship between family support and business performance, there must be some process by which family support impacts these individual-level characteristics. To that end, dyadic relational processes involve interpersonal and resource transactions, such as commitment and communication, which are key facilitators of effective resource transfer to the entrepreneur and new business. As argued previously, if we assume that the new business is often an extension of the entrepreneur, individual-level characteristics such as energy, motivation and self-efficacy should play an important role in business performance (e.g., Baron & Tang, 2009) when unlocked through relational mechanisms.

The Role of the Spouse

When an entrepreneur is married, this relationship constitutes what is arguably the closest and most influential personal relationship in the family system (White et al., 2015), thus exerting a considerable and important influence on business creation and sustainability. The U.S. Small

Business Administration reported in 2014 that 66% of small business owners inside the U.S. were married (Lichtenstein, 2014), and this percentage has remained relatively stable since 2005. Similarly, a 2004 study found that over half of all new business starts involved an entrepreneur who was married (Reynolds, Carter, Gartner, & Greene, 2004). This study estimated from a large sample of the U.S. population of 11.8 million individuals that met their definition of nascent entrepreneur. These early entrepreneurs were involved in approximately 6.5 million total start-up efforts. In short, these numbers reveal that the majority of entrepreneurs who are creating and running small businesses are married, and they number in the millions each year. While the majority of entrepreneurs start new businesses in the context of marriage, a surprisingly small amount of research has addressed the specific influences of spouse support on business performance. In fact, much of the empirical work on this topic has emerged only in the last few years. Existing research in this domain is primarily grounded in the family business literature, but has also been published in entrepreneurship, therapy, and family journals. Considering the unique features of these two important but very different systems, the context of marriage and entrepreneurship is suited for interdisciplinary research. The presence of family studies, entrepreneurship, and family business scholars' published work in the area is strong evidence of this assertion (e.g., Werbel & Danes, 2010). Spouse support in the context of entrepreneurship may manifest in a wide range of forms, as spouses assume one or more roles in the family and the new business. Their involvement in the business may vary from no direct participation to equal involvement. Equal involvement is sometimes referred to as copreneurship, implying that both spouses assume an entrepreneur identity and fully engage in the business. However, more often than not, a spouse takes on a supporting role to the focal entrepreneur. Rowe and Hong (2000) identified five types of spouse support roles in their study

of spouse support in family businesses. Although this study was focused on female support of male entrepreneurs, the role categories are conceptually gender neutral. These roles included: managing the household, working in the business, holding their own job, holding their own job and working in the business at the same time, and holding two outside jobs simultaneously. Their findings revealed that working in the business was significantly related to the type of new business formed, the size of the business, their market employment, and the entrepreneur's self-reported health status. In sum, this research demonstrates that the role a spouse chooses to take in the business can have important implications for the business and the entrepreneur and therefore deserves further study.

Matzek and colleagues (2010) offered empirical support for the role of spouse social support in business performance and relationship quality. This is one of the only studies to examine outcomes in both the work and family domains concurrently. They termed this mutual sustainability, which requires simultaneous consideration of both domains, rather than disregarding one domain. Both dependent variables, spouse involvement in the business and spouse dedication to the business, were measured one year after an initial assessment of the couple. This was a mediated model, where spouse involvement in the business was predicted to increase spouse dedication to the business and dedication was predicted to decrease time to break even and also increase relationship quality. The full model was supported; however, one drawback to the study was that only the entrepreneur was surveyed at time 2, limiting a dyadic picture of relationship quality.

Goal congruence between an entrepreneur and spouse is an important facet of the support perspective. The main idea is that goal congruence facilitates the release and accessibility of important spousal resources (human, financial, and social) that may serve to enhance the

business. A pair of studies were published in 2013 from Danes and Jang supporting an earlier proposition from Van Auken and Werbel (2006) that couple goal congruence enhances business success. Both of these studies offered a glimpse into couple processes in new venture creation rather than only considering the stock of resources available within the marriage. An advantage of both studies is the dyadic data and longitudinal design. In the first study, Jang and Danes (2013) showed that couple goal congruence led to higher quality communication in the new business context. Subsequently, better communication led to higher likelihood of a viable business demonstrating a sequential relationship among these variables. In the second study, Danes and Jang (2013) provided evidence that communication patterns impacted spouse commitment to the business. Specifically, their results showed that increased communication quality between the entrepreneur and spouse about the business led to greater commitment to the business from the spouse. The primary take-away from these findings is that couple goal congruence is critical and unlocks the door to communication and commitment. Nevertheless, an empirical gap exists between the role of spouse commitment and venture related outcomes. Notably, Van Auken and Werbel (2006) proposed that higher commitment levels increase spouse support to the entrepreneur through instrumental and emotional support, but no empirical evidence exists for spouse support specifically.

One way that spouse support can enhance venture performance is through matching the appropriate resources to the entrepreneur's specific needs. This is important in a resource-constrained environment, which is often the case in new business creation. The spouse may be required to devote resources to their own job, children, or other valued objects. When the entrepreneur is in need of instrumental or emotional support, both family and business domains

are best served when the spouse can divert the optimal resource configuration to the entrepreneur and business.

Gender effects have also been identified in the literature. Craft and colleagues (2015) highlighted that male entrepreneurs perceive receiving more support than female entrepreneurs in this regard. This seems to be at odds with findings from Powell and Eddleston (2013), but the discrepancy most likely results from the unique focus of each study and sample. Craft and colleagues were specifically examining couples and gathering dyadic data, while Powell and Eddleston only examined the entrepreneur in a broader family context. Nevertheless, each of these studies offers important evidence of the role of spouse support in new business creation. The sampling and methodology across all of these studies is a key marker of the relative infancy of this research stream. In fact, since 2010, six empirical studies have drawn on only two samples that included 471 different respondents. Other studies utilized two different nationally representative samples (e.g., Danes & Olson, 2003; Rowe & Hong, 2000); however, this research was only focused on the role of women in male-led entrepreneurial ventures. Furthermore, they were sub-samples of the larger nationally representative samples providing a total of 889 observations. Thus, the conclusions in this literature review are built off a total of 1,360 respondents.

As mentioned previously, one sample served as the basis for six different studies covered in this review. This sample included 109 couple observations followed by 94 individual entrepreneur observations in a second wave. All six studies were published in peer-reviewed journals. Since this was such a heavily utilized sample, I'll describe it in greater detail. Researchers across family business and family studies domains created a multidisciplinary project and collected data from 2004-2005 in two Midwestern states. They partnered with Small

Business Development Centers (SBDC) to survey clients participating in a pre-business counseling program who had received five or more hours of pre-business counseling. SBDCs are a collaborative effort among federal, state, local, and private groups to provide assistance to nascent entrepreneurs in order to improve business starts, performance and sustainability. Each SBDC handled survey distribution and collection for privacy. Participants were screened based on the following questions: (a) has your business been operating less than 12 months, and (b) do you have a spouse? The study had a 41% response rate at time 1. One year later, another round of surveys was distributed to the entrepreneur with an 86% response rate. Men comprised 56% of the survey population and women 44%. While there was a wide variety of industry coverage in the sample, more than 95% of survey participants were Caucasian. Werbel and Danes (2010) utilized this sample in the study of work-family conflict and spouse commitment. This same data set was utilized by Danes and Jang (2013) in their study of copreneurial identity development, again by Jang and Danes (2013) in their investigations of copreneurial couple goal congruence, and then again by Craft et al. (2015) in their study of spouse expectations and social support. One of the advantages of this sample is the dyadic level data on both spouse and entrepreneur. Unfortunately, five major empirical studies in this small stream of research rely on one sample, limiting the potential generalizability of these findings.

The Role of Other Family Members

Many of the studies at the intersection of family and entrepreneurship have considered the influence of "family" very broadly, most often concentrating on family resources. In an examination of the resources that play a role in family support for business success, Danes and colleagues (2009) found that family resources (financial, human, and social) contributed to firm success and sustainability. A measure of all resource types explained 13.5% of the variance in

gross revenue and 4% of the variance in the owner's perception of success. However, long-term sustainability measures were even stronger. These family resources explained nearly 27% of the variance in gross revenue and over 11.6% of variance in owner's perceptions of success. This is strong evidence for the impact that human, financial and social capital resources have on new business ventures. While this study demonstrated the value of family resources, they were not specific about which family member's resources mattered. An empirical question remains in terms of exactly how much specific family members contribute to this family resource measurement, and in which contexts it is most critical.

Powell and Eddleston (2013) provided evidence for the influence of instrumental and emotional support through a general measure of family support in their study of entrepreneurs. Surprisingly, they found minimal overall support in a main-effects model that analyzed affective family-to-business enrichment, instrumental family-to-business enrichment, and family-to-business support on entrepreneurial success. Success in this study was measured across three business performance outcomes—growth in employment, satisfaction with status, and satisfaction with employee relationships. In fact, the main-effects were only significant for satisfaction with employee relationships. Perhaps the most interesting finding from this study is a gender effect, indicating that women derive more business performance benefits from family than men. One interesting aspect of this study is that entrepreneurs in the sample were allowed to determine which family members to evaluate in their attributions of enrichment and support, and thus a study focusing these measures on a sample of specifically identified family members may yield different results.

Theoretical and Empirical Conclusions

There are four main conclusions to draw from this body of literature about the role of family support in entrepreneurship. First and foremost, existing empirical evidence demonstrated that family support has important implications for the entrepreneur and new business success. Rowe and Hong (2000) most clearly demonstrated the business implications of a spouse's role in the venture; however, in studies where researchers consider overall family support, there are sometimes conflicting results. This could be the case with Powell and Eddleston's (2013) findings that work-family enrichment and affective support had few significant effects on business outcomes until their model was tested along gender lines. Interestingly, both of these studies point towards the conclusion that family support matters, but gender plays an important role in the nature and impact of this support.

Second, family support can serve as a buffer against stress and as a resource stock to push the business forward. The WFC and support perspectives are two sides of the same coin, but they tend to rely on different theoretical foundations. The conflict perspective is rooted in conservation of resources (COR) theory (Hobfoll, 1989), while the support perspective relies heavily on systems theory through the Sustainable Family Business Theory (SFBT). Both theories provide solid theoretical grounding for the concepts under investigation, but there is opportunity to meaningfully integrate these perspectives in future research. I attempt to do that in this dissertation. For example, Craft and colleagues (2015) utilized Optimal Matching Theory as a unique perspective on how spouses can match the most appropriate resource to the entrepreneur's needs. This would imply that in some circumstances resources should serve a buffering function, while in others they should serve a supporting function. We cannot conclude

yet from this research what those circumstances are and what resource configurations are optimal.

Third, these studies provide evidence that communication and commitment are important family processes impacting the business, but they seem to *result* from business related goal congruence rather than *facilitate* goal congruence. That is, when venture goals line up in family relationships, better communication and commitment between family members follows. In fact, if there is one piece of advice to give a family engaging in new business creation, it may be to ensure that business goals are clear and mutually agreed upon. Once family members have agreed upon goals, it may be beneficial to work on communication techniques. Communication is a problematic component in many families, and the business may simply exacerbate preexisting communication challenges regardless of goal congruence. On the other hand, the business may offer a common set of interests and issues to communicate about, thus providing motivation for improving communication in the family.

Finally, while this research offers solid evidence that family support matters in entrepreneurship, the evidence is limited in how, where, and to what extent it matters. Furthermore, we must be cautious with these findings, because some of the best empirical evidence across studies is based on a small homogenous sample. A main take-away from this review may be acknowledgment of a great need for more empirical evidence and more diverse sampling.

Nature and Dynamics of Endorsement

In this next section, I introduce the concept of family endorsement in entrepreneurship. I begin with a general definition of endorsement and briefly explore endorsement in the marketing

and political science literature. Building on this research, I provide a definition of family endorsement and explore the dynamics of family endorsement in entrepreneurship. Finally, I consider the measurement of endorsement in the family system.

General Endorsement

Endorsement is a statement of approval or agreement regarding a person, entity, process, object or idea. To endorse something or someone is "to approve openly; especially: to express…approval of, publicly and definitely" (Merriam-Webster, 2004). Endorsement is characterized by a certain level of encouragement or enthusiasm for who or what is being endorsed, not just acquiescence or a passive going along.

Endorsement is a distinct event (i.e., the definite expression of approval)—a time and occasion where formal communication takes place and endorsement is given by one party and recognized by another. In this way, endorsement is distinguished from support—by the occurrence of a distinct event and the intentional and formal communication characterizing this event. In this research, support is viewed as an ongoing process and less temporally restricted than endorsement. In addition, support is measured after endorsement has occurred (or not). Thus, endorsement precedes and may impact ongoing support between two or more individuals.

Endorsement in Marketing and Political Science

Endorsement is not a term that has been utilized in the family entrepreneurship literature, but it has been explored in marketing and political science research. A brief examination of this literature is useful in unpacking important dimensions of endorsement that can be applied in the context of family endorsement. The marketing literature has given the most attention to the concept of endorsement through studies of celebrity endorsement in advertising. Celebrity

endorsement describes a person who leverages their public recognition on behalf of a consumer good by appearing with it in some type of advertisement (McCracken, 1989). Many businesses seek out the endorsement of celebrities because they influence consumer attitudes towards the business, brand, product or service that the celebrity is endorsing (Amos, Holmes, & Strutton, 2008). Celebrity endorsement can substantively impact the financial performance of firms by increasing a potential consumer's purchase intentions (Ohanian, 1991). Businesses seek celebrity endorsers—sometimes at considerable risk and expense—because these endorsements bring in substantial revenue and present the potential for long-term rewards. For example, Nike's lifetime endorsement contract with Lebron James costs the company over $30 million annually but harvested $345 million in Lebron-branded shoes in 2015 alone. Considering that James led the Cleveland Cavaliers to a 2016 NBA championship, Nike's investment appears to be paying off. Hence, celebrity endorsers offer the potential to deliver considerable value to the business over the short- and long-term. However, the power of celebrity endorsement does not rest solely in direct financial returns, but in the overall value the endorsement adds to the business. For example, meaning transfer is a process through which consumers attach some the qualities of the celebrity endorser to the business, brand or product they are endorsing (McCracken, 1989), the most prominent qualities being attractiveness, likeability and trustworthiness (Erdogan, 1999). Therefore, in addition to the direct financial benefits, a business may accrue indirect benefits such as reputation and status, depending on how strongly consumers associate the qualities of the celebrity with the qualities of the business. The value of celebrity endorsement, however, does not rest merely with the business; it must manifest into some type of perceived benefit to the consumer. When a consumer identifies with a celebrity who is endorsing a product, they are willing to be influenced by their endorsement (Kelman,

2006) in the hope of obtaining some of these valued qualities and meanings for themselves (McCracken, 1989). In sum, celebrity endorsement is a mechanism of influence between a business and the consumer, usually governed by a contract, designed to create value for the business.

The political science literature offers another context in which to consider the role of endorsement. This literature is primarily theoretical and considers how uninformed voters take cues from organizations, the media, social groups and other prominent individuals in deciding how to vote (Garthwaite & Moore, 2013). Endorsements from special interest groups in the political arena serve primarily as a signal to voters about: (a) the ideological and policy positions of candidates (Grofman & Norrander, 1990); (b) the policy positions of candidates relative to one another based on the endorsement from interest groups that a voter may not agree with (Wittman, 2009); and (c) the quality of a candidate (Coate, 2004; Prat, 2002). In addition, celebrity endorsement of candidates may provide voters a low cost information shortcut about the quality of a candidate, while attracting media attention, which further serves as a low cost advertising strategy for political candidates (Austin, Vord, Pinkleton, & Epstein, 2008), and can aid political candidates in campaign fundraising efforts. Thus, endorsement in the political context is a mechanism of social influence between the candidate and the voter or potential donor. In contrast to the marketing literature, endorsement in political science is usually governed by ideologies rather than contracts. Special interest groups and individual celebrities benefit from advancing their personal agendas and access to power and influence should their candidate win.

From the marketing and political science literature, we can draw several conclusions about endorsement. First, endorsement is a well-defined and observable exchange between two

parties. For celebrity endorsers in advertising, this exchange is usually marked by a formal contract and then explicit public endorsement of the business. For those endorsing political candidates, there is often a communications release to the media or public appearance with the candidate that publicly defines the endorsement. Second, this exchange takes place because each party perceives there is something to be gained from the transaction—increased revenue, votes, donations, monetary compensation, access to power, advancing personal ideologies, etc. Third, the formal or informal agreement between both parties that characterizes endorsement also serves to govern the future relationship between both parties in the exchange. Hence, the endorsement results in some type of ongoing relationship and establishes a set of guidelines that govern this relationship in the future. Endorsement binds, or at least, induces the endorser to maintain ongoing support for the endorsed, provided the original terms characterizing the endorsement do not change.

In both marketing and political science, endorsement involves a third party that the business or candidate hopes to influence. In the case of family endorsement in entrepreneurship, however, the motivations driving the endorsement process may or may not include a third party. A third party may be relevant when endorsement from an influential family member induces other family members to endorse the business and potentially provide resources. However, influencing a third party may not be relevant when endorsement is simply a strategy to access resources from the other party involved in the transaction. The parallel across these domains (i.e., marketing, political science and entrepreneurship) is that endorsement is a mechanism to acquire additional resources, whether that be from a third party or the other party involved in the endorsement process.

Nature and Dynamics of Family Endorsement

This study is fundamentally about the role that family member endorsement plays in new venture creation and sustainability. I define family endorsement as one or more family members' agreement with or approval of an entrepreneur's decision to start a new venture, prior to venture creation. The most straightforward way for an entrepreneur to gain the endorsement of a family member is through direct verbal or written communication. In this process, the entrepreneur communicates his or her intent to start a business and allows the other person the opportunity to express his or her level of approval or agreement regarding that decision. Endorsement directly connects the family and the new venture, and may impact important processes, such as family support, once the venture is created. Family support occurs within the distinctive domains of the family and the venture; however, it can also occur across both family and venture domains as they reciprocally influence one another.

Available evidence suggests that entrepreneurs are almost always family members, either acting in harmony or in conflict with the family members that surround them (Heck & Trent, 1999). Accordingly, examining the pre-venture creation phenomena of family endorsement highlights the potentially influential role that family members play across different phases of the entrepreneurial process, most notably here, the creation and sustainment of new ventures (Aldrich & Cliff, 2003). Research has long demonstrated that families play an important part in mobilizing the necessary resources for venture creation (Aldrich, Renzulli, & Langton, 1998), and while gaining family endorsement may seem like a good overall strategy for entrepreneurs, there are compelling reasons why this sometimes may not be the case. Furthermore, there are logical reasons explaining why whatever level of endorsement is offered may not always lead to expected outcomes.

Entrepreneurs have varying needs and appreciation for family endorsement. To some entrepreneurs, family endorsement may be a necessary prerequisite for any major decision, including the decision to start a business. This first group of entrepreneurs may only launch a venture with the explicit endorsement of certain family members, because they recognize and appreciate that those family members cannot be completely isolated from the impacts of the venture process. For these entrepreneurs, obtaining family buy-in is the normal course for family-level impact decisions. Furthermore, the entrepreneur may believe family endorsement is instrumental to providing access to valued resources (personal or venture related) controlled by these family members. To other entrepreneurs, however, family endorsement may be optional or entirely unnecessary. This second group of entrepreneurs may reside within (or control) a family system that does not value nor accommodate input from family members. Perhaps they are the sole decision maker and system norms render endorsement unnecessary or automatic. Still others, may choose to seek endorsement and proceed regardless of the answer. This final group of entrepreneurs may seek endorsement but proceed with the business whether they receive it or not. These entrepreneurs may initially perceive that they are likely to receive endorsement and having it will be advantageous. However, if family members choose to withhold endorsement, the entrepreneur will proceed with the business regardless of any potentially adverse consequences.

This last case is not rare. Entrepreneurs are often obsessively passionate, driven to pursue their goals to the detriment of other facets of their life. Evidence suggests that investors value this trait (Murnieks, Cardon, Sudek, White, & Brooks, 2016), but also suggests that this trait is often unsustainable and misguided. Entrepreneurs are known to at times passionately pursue bad ideas, persisting in something that dramatically increases their chances of failure

(Cardon & Kirk, 2015). This could certainly impact the way an entrepreneur's family views the venture. Additionally, other research suggests that entrepreneurs must often act swiftly and aggressively to capitalize on available windows of opportunity (Choi & Shepherd, 2004), and working to get close family members fully on board with an opportunity may require too much time. Thus, there are many such reasons why entrepreneurs may or may not seek endorsement from family members who may or may not be willing to give their endorsement.

Considering the personal sacrifices often required of an entrepreneur—the long hours, inherent uncertainty and high failure rates in entrepreneurship—it almost seems irrational that anybody would take on the challenge of starting a new business (Townsend, Busenitz, & Arthurs, 2010), unless they had no other choice for work. However, the literature on entrepreneurship has long provided compelling explanations for why individuals make the choice to start a business (Brockhaus, 1982; Gartner, 1985; McMullen & Shepherd, 2006). What is less clear are the motivations of family members who endorse an entrepreneur's decision to start a business—especially when other employment options are available—and to what effect.

Research on entrepreneurial couples (Muske & Fitzgerald, 2006) and family teams (Brannon et al., 2013) has provided insight into the motivations of family members who formally participate in a venture, yet little is known about the motivations of family members who do not play a formal role in the business. Some family members may be driven to endorse the efforts of an entrepreneur because of the prospective independence, prestige and financial freedom a business opportunity may offer. The perceived risks are outweighed by the prospects that entrepreneurial success may bring. Still others may support the entrepreneur's pursuit of a dream and are willing to accept whatever risks do exist. Other family members may simply feel a duty or obligation to endorse their family member's dreams or passions. However, while many

family members may fall into one or more of the above groups, the decision to endorse a new venture plan may not be straightforward or easy for all family members or across different family systems.

Indeed, family systems and specific family members who choose to withhold endorsement may not see the world, an opportunity, or the risk involved in the same way as the entrepreneur. Endorsing an entrepreneur—who may be leaving a secure job, starting the venture on the side, tapping the family savings or retirement accounts, taking on more hours and time away from home, asking friends and family for money, asking a family member to go back to work or to take on a second job, and in some cases, all of the above—may exceed the tolerances or individual risk thresholds of certain family members and also threaten personal as well as collective family goals.

Measuring Endorsement

There are at least two different ways to consider family endorsement—as an aggregate measure across the whole family or by examining specific relationships within the broader system. First, endorsement can be considered collectively as an aggregation among all family members. Utilizing this method paints a picture of the overall level of endorsement coming from the family system in general. At the extreme ends of the spectrum, one could assess that an entrepreneur is starting a venture with strong endorsement from their entire family, while another entrepreneur is starting a venture in spite of strong disapproval from their entire family. Both of these scenarios offer insight into important aspects of the broader family system (e.g., levels of cohesion among family members; (Olson, 2000). Additionally, overall endorsement may indicate a level of flexibility and adaptive capability within the system that is more tolerant of change within the family system. Theoretically, from a life-course perspective (White et al.,

2015), the context and structure of the family can change dramatically over time (e.g., birth, death, divorce). For example, if an entrepreneur experiences a divorce during business creation, and previously relied heavily on the spouse to keep things together at home while building the business, the entrepreneur may now be able to turn to another member in the broader family system, such as their parents, to backfill that support, or be forced to shift resources dedicated to the firm toward family responsibilities.

While this overall measure can be informative, families may not operate in consensus or with equal influence, presenting two potential problems. The first problem arises from the assumption that all family relationships equally influence the entrepreneur. Under this assumption, the parent's level of endorsement carries the same weight as the spouse's or any other family relationship that is examined (e.g., aunt, uncle, cousin, step-parent, etc.). The reality is that individual family members can vary drastically in their influence on the entrepreneur across different family systems. For one entrepreneur, parental endorsement may mean everything since that parent was a successful entrepreneur, while another entrepreneur has not spoken to or engaged with parents in years.

The second problem is an extension of the first and manifests in the measurement of endorsement. If the spouse offers very strong endorsement while the parents are strongly opposed, then these measures potentially cancel each other out in the family endorsement mean, indicating no endorsement at the overall family level. In this case, drawing the conclusion that there is indifference (i.e., no endorsement) in the family does not reflect the reality of discrepancy within the family's endorsement.

The second way to consider family endorsement is through examination of smaller subsystems within the overall family system. These more specific family relationships are often

examined as dyads (e.g., spouse-spouse) and triangles (e.g., spouse-spouse-adult parent; (Bowen, 1993). This relaxes the assumption of equal influence among family members and paints a more realistic picture of endorsement in diverse and complex families. Both methods are consistent with a family systems theoretical perspective; however, examining endorsement through the lens of smaller subsystems provides more clarity on which aspects of the system are driving specific outcomes, while also minimizing measurement problems. For example, an entrepreneur could start and sustain a successful venture with only spouse endorsement. If all other family members oppose the venture, the net effect of overall endorsement is negative, indicating that endorsement has an inverse relationship with sustainability. Yet, the endorsement of the spouse may have been strongly positive and the key to sustaining the venture. One may infer in this scenario that the endorsement of the spouse is the only endorsement that matters, but these effects are empirically indeterminate to date.

The strategic core theory of teams sheds light on this issue by its reliance that the performance of a work team depends upon the most important member of that team (Humphrey, Morgeson, & Mannor, 2009). An extrapolation to family systems logic suggests that endorsement by the strongest relational party may be the most important driver of entrepreneur adaptation and intentions, and the subsequent provision of support. Therefore, the focal entrepreneur's subjective assessments of family endorsement and support may be the most meaningful measure of the role that family endorsement plays in the venturing process, because they are able to focus on the specific relationships that are most important to them.

Finally, it is possible to capture the level of consensus in endorsement among family members by measuring the total variance in endorsements between reported members of a family. When standardized, this would provide an index of family consensus regarding the

endorsement idea, which could potentially be weighted by the importance of the relationship. The advantage of this approach is that it weighs and indexes each family endorsement, arguably providing the most comprehensive technique for modeling the level of endorsement provided from a family to an entrepreneur.

In summary, I have introduced the concept of family endorsement in entrepreneurship. I began with a general definition of endorsement and explored endorsement in the marketing and political science literature. Building on this research, I provided a definition of family endorsement and explored the dynamics of family endorsement in entrepreneurship. Finally, I considered the measurement of endorsement in the family system.

Theoretical Background

In this next section, I integrate family systems theory with theories of self-perception, social support and conservation of resources to explain how family processes are important factors in the sequence of decisions and interlaced activities that characterize critical parts of the entrepreneurial process (Shepherd et al., 2015; Wood et al., 2017)—namely venture creation and sustainability. Embracing a systems perspective facilitates investigation of the relational dynamics within the family and venture environments, rather than focusing solely on individual-level factors or the family or business in isolation. Systems theory is well suited for research at the interface of family and entrepreneurship considering the large number of variables, their relationships, and the dynamic nature of these relationships over time. However, family systems theory can be broad and somewhat abstract when applied to specific contexts. Therefore, I use self-perception, social support and conservation of resources frameworks to explain how human beings may be motivated to act under certain circumstances that often define the entrepreneurial context.

Self-perception theory (SPT) proposes that people are sometimes unclear about their own attitudes or emotions and come to understand them, to a certain degree, based on personal observations of their own behavior and the context in which that behavior occurs (Bem, 1967, 1972). The inherent uncertainty and ambiguity surrounding new venture efforts creates a context consistent with the predictions in self-perception theory. This theory helps us understand why family members may offer ongoing emotional support following endorsement of the entrepreneur's new venture creation decision. In addition, it offers insight into why family members may or may not sustain emotional support over the long-term when the venture environment directly threatens the family system.

Social support provides an explanation for why entrepreneurs may express intent to close their business even when business performance is satisfactory. Social support theory is also helpful in understanding why factors at home may cause entrepreneurs to experience additional tension or negative emotions in the business environment.

Finally, conservation of resources theory (COR) provides insight into the goal pursuits and rules of transformation within the family system (Hobfoll, 1989). This theory offers insights into the ways in which individuals' determined resources impact them, and, in general, contribute to stress resistance and coping strategies (Hobfoll, 1989). It also sheds light on how the entrepreneur and their family members may process environmental inputs and provide feedback to the environment (i.e., the other system—business or family). Thus, I will begin with a comprehensive description of family systems theory and then briefly touch on the relevant aspects of self-perception theory, social support and conservation of resources.

Family Systems Theory

Family systems theory[1] (Broderick & Smith, 1979; Broderick, 1993; Jackson, 1965; Kantor & Lehr, 1975) is rooted in the concepts and principles of general systems theory (Von Bertalanffy, 1950, 1968, 1972) and offers insight into the patterns, processes and sequences that characterize family relationship development and adaptation to both internal family relationships and the family's external environment (Cox & Paley, 1997; White et al., 2015). General systems theory, including cybernetics (Ashby, 1956; Von Foerster, 2007; Wiener, 1948, 1961), the science of self-correcting systems, is a meta-theory, which provides a set of principles applicable to a wide spectrum of phenomena across an array of disciplines (e.g. physics, biology, psychology, social sciences). General systems theory is attributed to the work of Von Bertalanffy (1950, 1968), who developed the theory, in part, as a response to the overly reductionist norms in science during that period. He argued that research tended to reduce phenomena into smaller units for analysis while ignoring the interrelationships between these units and their environment, resulting in overly simplistic linear explanations of complex phenomena. In contrast, the principles offered in systems theory emphasize that the whole is more than the sum of its parts. It considers the structure of objects, patterned interactions between these objects, the ability to process information, and the recursive (non-linear) nature of interactions within the system and between the system and the environment over time. Thus, the primary assumptions underpinning systems theory assert that: (a) all parts of a system are interconnected; therefore, when one part of a system changes, all other parts of the system are

[1] Also known as family process theory

influenced in some way; (b) one can only gain understanding by looking at the whole system; (c) the environment surrounding a system influences the system and in-turn is influenced by the system; and (d) systems are heuristics, that is to say, they are not real objects in and of themselves but rather a way of knowing about those objects (White et al., 2015).

At the most basic level, a system is a unit—consisting of an object or set of objects with relationships between themselves and their attributes (Hall & Fagan, 1956)—that can be distinguished from the environment (White et al., 2015). The family is a social system, where the "objects" are human beings with unique relationships to one another encompassing a past, present and future. Thus, the family is a living system[2] that is open and ongoing. It is open in the sense that members exchange energy, matter and information with the environment (Von Bertalanffy, 1950) through input (coming from the environment) and output (given back to the environment). It is ongoing in the sense that this process of exchange drives system changes over time, both internally through system components and relationships and externally through the system's relationship with the environment. The patterned interactions among family members that recur over time represent the ongoing processes that define a family system. This system is further characterized by its unique structural features (i.e., life stage, size, composition, etc.), individual psychobiological characteristics (age, gender, personality, etc.) and its sociocultural and historic position in the larger environment (Broderick, 1993).

While the principles in general systems theory are broadly applicable (Rousseau, 2015), the focus in this dissertation is on key mechanisms, which best inform phenomena in both the

[2] Opposed to a closed non-living mechanical system

family and venture environments. This research suggests that a systems framework facilitates a better understanding of venture sustainability by considering the interactions between the entrepreneur and their family. Therefore, I will draw primarily on family systems theory, and to a lesser extent sustainable family business theory (SFBT; (Stafford, Duncan, Dane, & Winter, 1999), two specific applications of general systems theory.

From its conceptual roots in the 1960s, family systems theory has grown to be one of the most generative and influential conceptual frameworks in family studies (White et al., 2015), as well as other fields drawing on family science, while SFBT has more recently been influential in the family business and entrepreneurship literature (Olson et al., 2003; Penney & Combs, 2013; Powell & Eddleston, 2016). Together, these two specific applications of systems theory offer a valuable framework with which to investigate the role of family in venture creation and sustainability. A systems perspective highlights the interactions within the family and venture environments rather than focusing exclusively on individual-level factors. Thus, systems theory is well suited for research at the interface of family and entrepreneurship when considering the large number of variables, their relationships, and the dynamic nature of these relationships over time.

Family systems are characterized by the following seven major principles. First, they are goal-seeking, meaning they are driven to set and pursue goals to their successful conclusion (Broderick, 1993). Second, they are self-regulating in that there is an information processing function that monitors the status of the system and makes necessary adjustments to continue successful goal progress and maintain equilibrium (Broderick, 1993). Third, systems have permeable boundaries that govern the flow of information and energy between the system and its environment (White et al., 2015). Fourth, the family system is guided by rules of transformation

which take environmental inputs and translate them into system outputs (White et al., 2015). Fifth, feedback is the process by which some amount of system outputs are fed back into the system as inputs in a recursive process (Becvar & Becvar, 2012). Sixth, requisite variety represents the sufficiency of responses that the system has available to meet environmental inputs (Broderick, 1993). Finally, systems are comprised of various subsystems. The following discussion will provide additional detail on each of these major principles.

Family process theorists (Boss, 2001; Broderick, 1993; Kantor & Lehr, 1975) view the family as a goal-seeking system, where a large part of the system seeks to preserve social and spatial relationships within and between the family and environment (White et al., 2015). Social systems are goal-seeking and self-regulating (cybernetic;(Broderick, 1993; White et al., 2015). A basic prerequisite to goal-seeking, however, is goal selection—the process of choosing goals and mobilizing the required support to achieve them. Thus, goal selection necessitates consideration of the relative importance among a set of potential or competing goals, an appropriate course of action, availability of essential resources, and identification of suitable milestones that facilitate goal achievement. System goals are organized hierarchically, where prime directives (Broderick, 1993)—the highest order goals—are more established, less likely to change, and set the priorities among lower order goals. While it seems self-evident that family systems are goal driven, upon examination it is often unclear which prime directives are really driving an actual family. For example, family systems consist of unique individuals with disparate goals, differing power structures and unique contexts. One family may be in the midst of growing their family while another is launching their young adult children into the world. One family may be adjusting to a recent marriage, while another is adjusting to a divorce. All of these factors and countless others shape the nature and hierarchy of family goals.

Family systems are self-regulating. Although all families are goal-seeking, their executive functioning and capacity to set and pursue goals differs. Some families are extremely focused and goal-driven while others seem to be passive life participants, proverbially carried in whatever direction the winds blow. The operation of an executive function acts as the decision-making process within a system, which coordinates and executes goal selection and achievement (Broderick, 1993). This executive function also performs self-regulatory functions by monitoring goal progress and providing the necessary course corrections when deviations occur. In addition to monitoring goal progress, the executive function helps maintain system equilibrium. A system seeks equilibrium through a balance of inputs and outputs. In essence, family systems tend to resist change; however, adaption is a necessary function of a living system. Thus, family systems must maintain some type of balance between stability and flexibility. Stability provides order, while flexibility facilitates adaption (Bowen, 1993). Too much stability, however, leads to rigidity, while too much flexibility can lead to chaos.

All family systems have boundaries (White et al., 2015). System boundaries create a permeable border between the system and the environment. The degree of permeability theoretically varies from open to closed and helps characterize the system. However, in social systems, boundaries are more accurately characterized as some degree of openness, since there is never a fully closed social system. One of the primary tasks of the family system is to preserve the integrity of family boundaries while also regulating transactions between the family and the environment (Broderick, 1993). Thus, family paradigms (Reiss, 1981)—the shared assumptions among family members about the stability and safety of their social environment—become an important factor in how transactions with the environment are regulated. New venture creation naturally challenges the boundaries between work and family. For instance, many entrepreneurs

begin operating out of their home. In this case, there is an almost entirely open boundary between work and family. Even if an entrepreneur has a separate office, the demands of starting a business require almost constant attention, and modern technology allows entrepreneurs to stay plugged in wherever they are, including home. Technology and distraction during family time is not the only boundary issue. Entrepreneurs frequently dip into personal finances and those of friends and family to start and grow the new business (Gartner, Frid, & Alexander, 2012). When times get tough or cash flow becomes a problem, family savings or a spouse's job are convenient avenues to fill gaps. Furthermore, when family members are involved in the business, a host of other relational and communication factors further blur the work-family boundary. Entrepreneurs with more permeable boundaries between work and family make the family more susceptible to environmental influences, especially those emanating from the venture. Thus, the norms that characterize family interaction (i.e., internal rules of transformation within the system) shape the family's response to environmental influences.

All systems have internal rules of transformation (RoT), which characterize the relationship between elements within the system. The major purpose of a RoT is to transform environmental inputs into system outputs. For example, when a new venture necessitates long hours from the entrepreneur, the family processes this new environmental input based on the norms and values of the family system. If long hours are an acceptable norm, then the system continues to operate in equilibrium. However, if long hours are not consistent with the norms and values of the family system, then individuals within the system will provide feedback to the entrepreneur in order to indicate a rule violation.

Feedback is the process by which some quantity of system outputs are fed back into the system as inputs (White et al., 2015). Feedback can be either negative or positive, but these

expressions are counter-intuitive. Negative feedback decreases deviations from goal pursuits and positive feedback increases deviations from goal pursuits. Thus, positive feedback is detrimental to the system, because it hinders progress toward system goals; however, negative feedback facilitates goal progress. Drawing again from the example of long hours, a family member who directly expresses discontent with long work hours is offering negative feedback to the system. This feedback serves as information to the relational system that there is a deviation from valued goals and rules of transformation. However, if the same family member chose to say nothing about the long hours, this silence could serve as positive feedback to the entrepreneur, if that silence is interpreted as approval of the long hours. In essence, lack of intervention promulgates positive deviations (which are bad), while intervention and feedback results in negative deviations (which are good) as they move back closer to desired goals.

All systems contain requisite variety (White et al., 2015). System variety describes the range of resources available to a family system, which enables the system to adapt to or enact environmental change. These resources are critical to the bidirectional interface of the family and the environment, which in the context of business creation and sustainability is often characterized by the competing expectations, stress and conflict that naturally arises between two systems competing for scarce resources (Morris & Kellermanns, 2013). A family system with more variety (i.e., resources) implies that the family has greater ability to respond to and manage change. In the broadest sense, resources are "anything perceived by the individual to help attain his or her goals" (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014, p.1338). Consider this in the context of work hours. Time is a scare resource that is often valued by those in close relationships but also required to run a business—often in extreme quantities. If a spouse values a close relationship and time together with the entrepreneur, the impact of extreme

work hours may be offset through other relationships (i.e., friends) and hobbies that can fill their time and meet this need. Thus, the spouse may be willing to accept the entrepreneur spending more time on the business. However, a spouse or family with low variety (e.g., the spouse counts on the entrepreneur to spend time with them, but does not have a variety of other people or activities to fill their time) will be stressed by the unmet need in their life. This is a common occurrence for military spouses who move to a new base and are left home alone when their partners deploy.

It is important to realize that the resource itself is not just a source of variety, but also the capacity to utilize or extend that resource across domains. For example, a family member's ability to deal with and isolate stress at work constitutes a resource that can impact both family and work outcomes (Munyon et al., 2009). I have also discussed social support (i.e., instrumental and emotional), which can serve as a resource. However, the capacity to offer that support is a resource in and of itself (Winkel, Wyland, Shaffer, & Clason, 2011). Not everyone has the ability to offer the same quality and quantity of emotional support.

Family systems are almost always comprised of smaller subsystems (White et al., 2015). One particular family system may be examined at the household level and consist of two adult parents and several children. In this case, the family system contains multiple subsystems including a marital subsystem, a sibling subsystem, and a parent-child subsystem. Consider a seven-person family living in the same house—a married couple, four children, and a grandparent. A sample of the major sub-systems within this family includes: the couple relationship, various combinations of sibling relationships, various parent-child relationships, and relational connections between the grandparent, parents and siblings. Subsystems are important to understand because they form the basis for the overall operation of the larger system

within which they are embedded. Individual family members manage the social and spatial relationships in dyads to buffer themselves from the demands of other members while also linking to one another through bonding (White et al., 2015).

Finally, transactions describe interactions between the family and environment. Transactions link internal systems to external systems beyond the boundaries of the family. Transactions are where family resources and family processes come together to facilitate a flow or exchange of resources within the family system and across system boundaries (Stafford et al., 1999). As mentioned previously, a prominent and specific application of systems theory to the family business context is Sustainable Family Business Theory (SFBT; (Danes et al., 2008), which was the theoretical foundation for many of studies in the literature review (e.g., Danes et al., 2009; Jang & Danes, 2013; Matzek et al., 2010; Werbel & Danes, 2010). SFBT offers insight into transaction processes and acknowledges the resource-intensive process of creating a new business by considering the different forms of capital that are required for long-term sustainably in both the family and business systems. The most relevant principles in this theory include: (a) business sustainability is a function of the quality of resources and processes in the business and family; (b) business and family interact through resource exchange across system boundaries; (c) incongruity between demands and available resources in each domain introduces conflict within and between systems; and (d) change in either domain necessitates reconstruction of processes and firm structure to ensure survivability. Within these principles, two concepts are particularly important to understand—what constitutes resources and processes.

Although I have already given a thorough treatment to what constitutes resources, it is worth briefly explaining the concept of resources from an SFBT perspective. Much of the empirical research in this area conceptualizes resources in terms of human, social, and financial

capital (Danes et al., 2009). Human capital is the knowledge, skills and abilities that each family member maintains. This may come from education, experience, or innate talent. Social capital is akin to goodwill or the willingness and support within a relationship that can be drawn upon for action. Whereas human capital is embodied in a person, social capital exists in the context of a relationship between two or more people (Werbel & Danes, 2010). Financial capital refers to money, credit, or other economic resources that family members may bring to the table through inheritance, employment, or other means. In the marital subsystem, there are often legalities that govern the use of financial resources held jointly within the marriage. A spouse's consent over these joint resources, such as savings, investments, or home equity, influences the availability of these resources outside the family system (e.g., the new venture context; (Gudmunson & Danes, 2013). The spouse's consent represents an interpersonal process that facilitates the flow of the joint resource, constituting a transaction.

Processes are the second foundational concept in SFBT. Processes consist of the interpersonal and resource transactions that take place between the business and family systems and often take place at the interpersonal level through commitment, decision-making, conflict management, communication and problem solving. In this sense, emotional support is an example of both a resource and a process, in that encouragement is a valued object, but it only manifests through an interpersonal process. Thus, processes facilitate and enable resource transfer between family and business systems and can be identified in the relationship between the entrepreneur and their spouse, parents, or other family members.

At this point, it may be helpful to imagine a figure 8 on its side. On the left side is the family system, which takes resources from the environment, transforms them, and provides outputs to the environment. On the right side is the entrepreneurial venture, which also takes

resources from the environment, transforms them, and puts outputs into the environment. These systems are interconnected because they are embedded within the environment surrounding each system—the family takes resources from the venture, but also provides resources, while the venture takes resources from the family and gives resources back. The primary point is that when the resource exchange is in balance, both systems are in equilibrium and things are sustainable. However, when one system is siphoning too many resources from the other or not giving enough back, it causes stress (i.e., disequilibrium) and the system must adapt in some way.

An important question arises from this illustration: what drives the input to output transformation processes that occur within each system? Furthermore, what sustains these interpersonal processes over the long-term when the environment (i.e., other system—business or family) poses a threat? Self-perception theory (Bem, 1972) provides some additional insight to these questions.

Self-Perception Theory

Self-perception theory (SPT) proposes that people are sometimes unclear about their own attitudes or emotions and come to understand them, to a certain degree, based on personal observations of their own behavior and the context in which that behavior occurs (Bem, 1967, 1972). The inherent uncertainty and ambiguity surrounding new venture efforts creates a context consistent with the predictions in self-perception theory. This theory helps us understand why family members may be supportive in context of venture creation and sustainment. In addition, it offers insight into why family members may or may not maintain their support over the long-term when the venture environment adversely impacts the family system.

Self-perception theory (SPT) is a refinement of cognitive dissonance theory (CDT) (Festinger, 1962). CDT proposes that individuals tend to seek consistency between their beliefs (i.e., cognition) and behavior. When an inconsistency arises between a person's beliefs and behavior, the individual seeks to reduce that dissonance. It most cases people change their attitude to match their behavior (Harmon-Jones & Harmon-Jones, 2007). SPT, however, proposes that there are times when behavior will influence attitudes (Bem, 1967, 1972). This occurs in much the same way that individuals make inferences about the internal state and attitude of others based upon their observable behavior. That is, individuals are not capable of knowing what is going on inside another person's head; they are only capable of inferring another person's attitude based on observed behavior. For example, when one observes a neighbor placing a campaign sign in their front yard several things may be inferred: (a) they care about voting, (b) they want others to vote in a particular way and (c) they have a certain set of ideologies that are consistent with what we know about the candidate or political party they are advertising. While this seems straightforward, it is counterintuitive when applied to oneself in an effort to understand one's own attitudes on a particular issue. After all, we are able to see inside our own mind, and in general, we assume that our attitudes and personality primarily drive our behavior, not the other way around. And while this is often the case, Bem theorizes in SPT that sometimes this process is flipped around, and our behavior determines our attitude. Consider the following logic.

When an individual's attitude or internal cues are weak or ambiguous with regard to a particular issue or set of circumstances, they are functionally in the same position as the outside observer (Bem, 1972). In this situation internal cues are unreliable, so outside cues are necessary to infer attitudes. Even those people who are relatively more self-aware are not always able to

accurately infer the reasons for feeling a certain way. Consider for a moment the paradoxes and difficult choices that life often presents, which bring ambiguity and uncertainty along with them—a parent who is grappling with how to support an adult child who has failed to launch or a manager who must decide what to do with an extremely loyal and reliable employee who makes an error that would lead to termination under normal circumstances. In these examples, the parent's or manager's behavior becomes a source of information that clarifies or reinforces a particular attitude in the midst of a difficult decision (e.g., Munyon, Hochwarter, Perrewé, & Ferris, 2010).

Self-perception theory is also particularly useful in contexts that involve persuasion such as sales and marketing (Maio & Haddock, 2014). Studies in marketing have demonstrated how salesmen can obtain larger commitments from target customers by first obtaining small commitments (Freedman & Fraser, 1966). This foot-in-the-door (FITD) strategy involves asking a person to do something small, such as try a free sample, to which most people agree, and then at some later point presenting the target request, such as asking them to purchase the product. The basic argument is that after people see themselves behave in a manner consistent with the first request, they are more likely to agree to the target request. A multitude of experimental research has shown that people comply with the target request at a higher rate when utilizing this strategy (Burger, 1999; Pascual, Guéguen, Pujos, & Felonneau, 2013). Burger's (1999) meta-analysis actually showed that, while self-perception is the most common explanation for the FITD effect, other psychological processes enhance this effect as well. These processes include a person's general need to: conform to the norm by doing what others or society in general think they should do in a given situation (Asch, 1951; Sherif, 1936), maintain consistency in their attitudes and behaviors for their own sake and the perception of others (Festinger, 1962), and

stay committed to a decision once it has been made (Kiesler, 1971). When an entrepreneur seeks out the endorsement of family members regarding the decision to launch a new venture, an array of psychological processes are activated in those family members. These processes theoretically impact not only their decision to endorse the new venture, but also their long-term support of the venture once it has launched.

Consider an example in the new venture context. When a spouse is faced with a decision to endorse the launch of an entrepreneur's new business, even rudimentary consideration reveals the reality of competing prospects. On the one hand, a successful venture can offer tremendous rewards to a family: financial success, the freedom of being your own boss, and the potential to work together as a family. While on the other hand, the venture could drain a lifetime of family savings, tie the entrepreneur to a business that is not easy to exit, and strain family relationships beyond recovery. The presence of uncertainty is a fundamental aspect of the entrepreneurial process (Knight, 1921), and by definition creates some level of ambiguity regarding any decision related to endorsing a business start. In addition, the failure rates of new businesses serve as grounds for this uncertainty. At the same time, the entrepreneur is ready to start the venture. Seeking endorsement is in many ways similar to the foot-in-the-door strategy. Obtaining endorsement is a low cost, up front activity that can lead to long-term payoff and commitment in efforts to sustain the venture.

Social Support

Social support theory sheds light on why entrepreneurs may launch ventures in the face of uncertainty and also express intentions to close a business that is performing adequately in the market. Social support is an interpersonal process occurring at the interface of the attachment and caregiving systems within a relational dyad. Social support theory adds depth and insight to

the goal pursuits, rules of transformation and feedback within the family system. Social support facilitates understanding of why entrepreneurs may experience work tension or negative emotions in the work environment, which stem from events at home (Feeney, 2004). In addition, the concepts of safe haven and secure base support shed light on why family endorsement may impact venture creation decisions.

It is human nature to nurture, protect and promote the welfare of other human beings, particularly those with whom we are in close relationships (Bowlby, 2008). Family members regularly make personal sacrifices in the interests of their children, spouses, parents and other relatives, putting others' needs ahead of their own (Collins et al., 2010). In fact, these are not just individual instincts but guiding expectations in one's closest relationships. For example, marriage ceremonies often incorporate public declarations of commitment to this type of behavior (e.g. for better or for worse, in sickness and in health).

People utilize two general processes in the context of social support—safe haven support and secure base support (Collins et al., 2010). Safe haven support describes how family members assist one another in coping with stressful life events. This is an important aspect of social support, because the venture environment is often characterized by uncertainty and other environmental threats to resources that are important to the entrepreneur and their family (Jennings et al., 2013). Family systems offering safe haven support are a source of security, help and relief.

Secure base support describes how family members enable one another in their pursuit of personal goals and engagement in autonomous exploration (Bowlby, 1988). When this support is available to an individual, in this case an entrepreneur, they are more likely to explore opportunities and accept challenges, such as new venture creation (Feeney, 2004). Secure base

support also has an influence on self-esteem, self-efficacy, learning and discovery, all of which are important in entrepreneurship (Zhao, Seibert, & Hills, 2005).

What is unique about social support in families is that support takes place within an existing system of relationships that have both a past and a future. Bowlby's (1982) attachment theory is not just limited to children but applies to adult behavior as well, especially when facing stressful events. For example, individuals often pursue closer proximity to spouses or other family members in their life when responding to medical issues, fear of change, feelings of rejection by others, failures in achievement and threats of loss (Collins et al., 2010).

Emotional and instrumental support are the two primary mechanisms of general social support (Adams, King, & King, 1996). Emotional support comprises the attitudes and behaviors of family members, which provide another "with encouragement, understanding, attention and positive regard" (King, Mattimore, King, & Adams, 1995 p. 237). In the context of new venture creation, these attitudes and behaviors may manifest as a: willingness to discuss with or advise the entrepreneur, general interest in the new venture, and genuine concern for the entrepreneur and the business (King et al., 1995). Family members providing emotional support encourage the entrepreneur in their endeavor to start a new venture and are able to sympathize when problems arise (King et al., 1995). Instrumental support involves tangible assistance to the entrepreneur in the form of human, social or financial capital, which may include working in the business, providing contacts, or lending money. While both forms of support are important, emotional support is a common denominator in that it is accessible to all family members at some level, regardless of their human, social or financial capital.

Conservation of Resources

When family social support is lacking or is less important to the family system, conservation of resources theory (COR) provides insight into the goal pursuits, rules of transformation and feedback within the family system (Hobfoll, 1989). It sheds light on how environmental inputs may be taken in, processed and fed back across system boundaries into the environment, thus impacting the other system (i.e., business or family).

COR is a wide-ranging motivational theory which offers insights into the ways in which individuals' determined resources impact them, and, in general, contribute to stress resistance and coping strategies (Hobfoll, 1989). The theory's primary assertion is that people are motivated to acquire new resources[3] while protecting those they already have (Halbesleben et al., 2014). Simply put, individuals seek a net gain in resources over time. Hobfoll (2001: 353) suggests that, "People are active participants in looking forward in their lives, considering their goals, evaluating obstacles and advantages that the environment is likely to offer, and acting to enhance their resources and limit their resource losses." Thus, this theory also offers, to a large degree, insight into what motivates individual behavior beyond the prediction of stress and strain.

As people seek to preserve and gain resources, any actual or perceived loss to these resources constitutes a significant threat (Hobfoll, 1989). Consequently, stress will occur when: (a) individuals' resources are threatened with loss (i.e., the perception of possible loss); (b) actual loss to resources is experienced; and (c) people fail to earn back sufficient resources following

[3] See the requisite variety section in family systems theory for an explanation of resources.

substantial resource investment (e.g., a sufficient financial return on investment or returns on time and energy invested in interpersonal relationships; (Hobfoll, 2001). One of the major principles of the theory is the primacy of resource loss, meaning that individuals experience more psychological damage from the loss of resources than psychological benefit when regaining those lost resources (Halbesleben et al., 2014). This would suggest that losses in the venture context would have more impact than similar gains (e.g., the personal savings I invested in the venture and lost are more harmful than the help that similar gains would have provided). Thus, individuals are more likely to engage in behaviors that minimize resource loss, because resource loss has such an adverse impact on well-being.

The second major principle in COR is resource investment, asserting that people invest resources in order to protect against the anticipated or actual loss of resources, recover from any losses, and to gain resources (Hobfoll, 2001). Research in organizational behavior has examined this principle in the context of coping, arguing that coping requires the investment of resources to curtail future losses (Halbesleben et al., 2014; Ito & Brotheridge, 2003; Vinokur & Schul, 2002).

Summary of Theory

In this section, I supplemented family systems theory with theories of self-perception, social support and conservation of resources to explain how family processes are important factors in the sequence of decisions and interlaced activities that characterize critical parts of the entrepreneurial process (Shepherd et al., 2015; Wood et al., 2017). A systems perspective facilitates investigation of the relational dynamics (interactions) within the family and venture environment. Family and business interact in a recursive fashion over time as resources move across domains with both beneficial and detrimental consequences (Westman, 2001).

Understanding this family-to-business and business-to-family influence may offer important insight into factors that threaten to undo the business, the family, or both when left unchecked.

Summary

This chapter has discussed the role of family in entrepreneurship, the nature and dynamics of endorsement, and four theories supporting the primary research question. First, I surveyed research at the intersection of family and entrepreneurship and highlighted existing knowledge related to the influence of family on entrepreneurship. Second, I introduced the concept of endorsement and its use in marketing and political science literature. I used this research to lay the groundwork for the application and influence of endorsement in entrepreneurship. Finally, I introduced family systems theory and three supporting theories—social support, self-perception and conservation of resources—in order to lay the theoretical basis for the hypotheses in the next chapter.

CHAPTER 3. HYPOTHESIS DEVELOPMENT

This chapter draws on family systems theory and the theories of self-perception, social support and conservation of resources to offer 13 hypotheses across three models regarding the impact of family endorsement on venture sustainability and venture creation. I begin with the conceptual model found in Figure 3.1. This model offers nine hypotheses regarding the impact of endorsement on venture sustainability through ongoing emotional support. This model also examines how work hours and standard of living changes may moderate the relationship between endorsement and emotional support and indirectly impact the long-term sustainability of the venture. Second, I offer two hypotheses regarding the impact of family endorsement on venture creation efforts (see Figure 3.2). This model predicts that family endorsement will moderate the impact that environmental uncertainty has on an entrepreneur's method and timing of venture roll-out. Finally, I offer two hypotheses regarding the impact of emotional support, standard of living change and work hours on the entrepreneur's closure intentions and affective state (see Figure 3.3). These hypotheses consider how family and business factors directly influence the entrepreneur.

Endorsement, Emotional Support and Venture Sustainability

The risks, costs, and family system rules of transformation associated with new venture startup might suggest that an entrepreneur would seek family endorsement prior to starting a business. However, considering individual differences and various subsystems and resources within the family, it is reasonable to assume that in many cases family members may not be willing to offer endorsement, even for altruistic reasons of "saving" the aspirant entrepreneur from difficulty or failure. This presents an important dilemma for an entrepreneur who is ready

to act on an opportunity. We know that an entrepreneur must often act swiftly and aggressively in order to maximize their chances of success (Choi, Lévesque, & Shepherd, 2008). However, postponing venture creation to gain family endorsement of the venture launch decision may push the entrepreneur outside an acceptable timeframe, jeopardizing the success of the new venture or changing how the entrepreneur seeks to roll-out the venture. For example, an entrepreneur who fails to obtain endorsement may still roll-out the new venture, but do so using alternative means intended to reduce risks identified by the dissenting family. Delayed venture start, moonlighting (i.e., keeping one's current job and starting the business part-time), team entrepreneurship, or even copreneurship may represent practical examples of risk management toward this end.

I first consider why an entrepreneur may be motivated to seek out the endorsement of close family members after deciding to start a new venture. As noted earlier, family systems are goal-seeking and seek to preserve the social relationships within the system and the spatial relationship between the family and the environment (White et al., 2015). Prior to goal-seeking, the system must select and prioritize goals, then mobilize the necessary resources to pursue those goals. This process is carried out by the executive function within the system (Broderick, 1993). Drawing on the primary assertion in conservation of resources theory, we assume that individuals, including the entrepreneur and their close family members, are motivated to protect resources they currently possess while also seeking to obtain new resources (Halbesleben et al., 2014; Hobfoll, 1989). The entrepreneur's pursuit of family endorsement is, at its core, an effort to increase their pool of valued resources through new venture creation, while minimizing the chance of resource loss within the family system.

Family endorsement increases the entrepreneur's potential for resource gain: (a) through validation of the venture creation decision, thus boosting the entrepreneur's confidence; (b)

through the influence that endorsement from one or more family members has on another family member who is considering endorsement; and (c) by facilitating access to valued resources controlled by family members. Seeking family endorsement theoretically reduces the potential for resource loss by: (a) complying with relational rules within the family system; (b) aligning goals and establishing boundaries within the family system; and (c) serving to create a relational rule (i.e., rule of transformation) within the system that processes environmental input from the venture in such a way that preserves ongoing family support. I'll briefly unpack each of these ideas.

Family endorsement may serve to validate or reinforce the entrepreneur's venture creation decision, boosting their confidence, or self-efficacy, moving forward. Greve and Salaff (2003) demonstrated that family members are important in assisting entrepreneurs with venture preparation. Family support is positively associated with venture preparedness and start-up decisions (Chang, Memili, Chrisman, Kellermanns, & Chua, 2009). At a minimum, if the entrepreneur can successfully pitch the business to family members and gain their endorsement, then this serves as a source of external validation regarding the merits of the opportunity, thus boosting confidence and entrepreneurial efficacy. Opportunity confidence is an important driver of the venture creation process (Dimov, 2010).

Endorsement from a particular family member or set of family members may serve as a relational influence mechanism, easing the path towards endorsement from other family members. Drawing from the endorsement literature in marketing and political science, the endorsement of an influential family member in the broader family system may serve as an information shortcut (Austin et al., 2008) to other family members about the quality and legitimacy of the venture. In some family systems, the power position of the influential family

member may induce endorsement. Both validation and endorsement from a larger pool of family members thus facilitate an increase in current resources and the potential for greater access to resources in the future. These resources range from social support to significant financial investments in the firm.

Endorsement also serves to reduce the chances of future resource loss in a relational system. For instance, joint discussion regarding major decisions is a well-established social norm in many relationships in the U.S. and characteristic of higher quality marriages (Rogers & Amato, 2000). Seeking endorsement indicates a certain level of communication, trust, and respect in a close family relationship. Based on the fundamental tenets of social exchange (Emerson, 1976), a violation of an important relational norm is likely to result in some type of adverse response to the entrepreneur that serves as feedback to the relational system. Therefore, seeking endorsement reduces the chances of violating a relational rule and receiving negative feedback from the family member.

As previously discussed, venture creation is likely to impact those family members who are close to the entrepreneur and will likely disrupt equilibrium within the family system (Aldrich & Cliff, 2003; Jennings et al., 2013). Endorsement facilitates the alignment of goals within the family system and establishes preliminary boundaries between venture and family. Seeking endorsement provides an opportunity to discuss the effects the new venture may have on the family system and affords family members a voice in the venture creation strategy. Thus, seeking endorsement serves to align the goals of the family system with the entrepreneur's goals for the new venture, reducing the chances of future conflict. For example, a spouse may need to secure or remain in a job they do not like because of the income and benefits the job provides. The entrepreneur's parents may be asked to serve as a buffer with childcare or monthly expenses.

Other relatives may be called upon to pick up responsibilities that the entrepreneur was previously able to manage (e.g., care for aging parents). When a greater number of family members offer endorsement, there is better goal-alignment between the family system and the venture. Seeking endorsement activates the family system's executive function, reducing the likelihood that family members will withdraw resources (i.e., negative feedback) from the entrepreneur in response to venture effects impacting family system equilibrium.

Finally, endorsement serves to create a relational rule (i.e., rule of transformation) within the family system, which influences how family members will process environmental input emanating from the venture. In other words, it influences how family members will handle the various challenges presented by the business in the future. Endorsement serves as a measure of a particular family member's attitude towards the venture (i.e., approval or agreement) at the time endorsement is sought. It also serves as an indication of their future attitude and behavior regarding the venture (Ajzen & Fishbein, 1977; Pratkanis, Breckler, & Greenwald, 2014).

Endorsement is anchored upon certain conditions that are deemed acceptable by the family member regarding new venture creation. These conditions may be explicit but are often implicit. Applying COR, individual family members, like the entrepreneur, are motivated to protect current resources while pursuing new ones. Therefore, when a family member has evaluated an opportunity and offers endorsement, it is assumed that they view venture creation as a path towards net resource gain. Their assessment is based on current knowledge and available information, creating a set of conditions and perceived outcomes that engender endorsement. In this way, endorsement creates an informal contract between the entrepreneur and family member. Drawing on the celebrity endorsement literature, we see that endorsement necessitates ongoing support under the conditions of a contract. Thus, it is expected that a family member

will offer ongoing support for the venture provided there are no violations of the conditions enabling their endorsement. However, because of the unique, enduring nature of familial relationships, family endorsement is far less contractual and far more complex and relational than its celebrity counterpart.

Thus, a purely contractual understanding of endorsement is problematic and limited in the new venture context. In reality, a family member endorses the entrepreneur with imperfect information, and a limited understanding regarding the nature of the opportunity. Given the fact that venturing is an inherently uncertain endeavor (Knight, 1921), one cannot make guarantees or offer perfect information regarding the short- and long-term effects of the venture while garnering endorsement, thus challenging the assumption that once endorsement is given, its long-term effects will be sustained. In addition, it is nearly impossible and certainly not efficient to establish specific conditions regarding endorsement that will hold up under all conceivable scenarios of venture creation and sustainability. This assumes a certain level of knowledge and information about venture creation and sustainability that accounts for all possible contingencies, which is not realistic. In view of the nature of family bonds, family endorsement and thus, ongoing support, cannot be strictly conditional, as a contrast to celebrity endorsement: (a) because information is not perfect and nothing is certain in venturing, and (b) family endorsement is occurring within a larger, overarching family contract (e.g., you're in this "for better or for worse").

Therefore, a family member may provide endorsement based on a wide spectrum of knowledge and information. At one end of this spectrum, they may endorse with a high level of knowledge and information regarding the potential outcomes and effects, good or bad, that venture creation and sustainment may have on the family. Knowledge could come from a

variety of places including prior exposure to venturing or a rapid education in the period leading up to endorsement. In many cases, the information may only come from the entrepreneur, because they are the only tangible connection between the family and the venture. With greater knowledge and information, family members are able to provide endorsement under a more realistic set of conditions. Under these conditions, the family member is better prepared to adapt to a broader range of venture effects. Therefore, after venture creation these effects are less likely to produce attitude discrepancies which would potentially drive behavior change (i.e., a decrease in support; (Festinger, 1962). Should a particular circumstance arise that violates the conditions of endorsement, cognitive dissonance theory predicts that people often change their attitude to match behavior (Harmon-Jones & Harmon-Jones, 2007). In the case of a well-informed family member who is offering endorsement with their "eyes wide open," rather than withholding support when challenged by venture effects, the family member is more likely to relax the original conditions surrounding their endorsement in order to accommodate continued support under the current circumstances. This reduces cognitive dissonance and facilitates attitude consistency under the new set of conditions. Consequently, maintaining a similar attitude should continue to drive ongoing support for the venture.

At the other end of the spectrum, the family member may offer endorsement with very little understanding of the realities and potential outcomes associated with venture creation. This latter scenario is likely the case for many family members, especially those who are endorsing an entrepreneur who is starting a business for the first time. In this case, self-perception theory (SPT) better explains why endorsement should lead to ongoing support. Recall, SPT proposes that when an individual's attitude or internal cues are weak or ambiguous with regard to a particular issue or set of circumstances, they are functionally in the same position as the outside

observer (Bem, 1972). Hence, internal cues are unreliable, so external cues are necessary to infer attitudes. Recall the foot-in-the-door strategy explained earlier—salesmen can obtain larger commitments from target customers by first obtaining small commitments (Freedman & Fraser, 1966). Through seeking endorsement, the entrepreneur is essentially selling (i.e., influencing) the family member that new venture creation will be an overall net resource gain. With little information about the realities of venture creation, endorsement may seem to be a relatively small commitment to the family member. Thus, endorsement is easily obtained, setting the family member up for the larger commitments that are likely to follow if the venture progresses. When confronted with negative venture affects that stress the family system, a family member is likely to reevaluate their position on the venture. Unsure of their attitudes, SPT would suggest that the family member will look to external cues such as their prior behavior (giving their endorsement), and this cue will shape their present attitude (i.e., I supported them then, I should support them now) translating into continued social support.

Other psychological processes contribute to endorsement as well—the need to conform to the norm by doing what others or society in general think you should do in a given situation (Asch, 1951; Sherif, 1936), maintaining consistency in attitudes and behaviors for their own sake and the perception of others (Festinger, 1962), and staying committed to a decision once it has been made (Kiesler, 1971).

In sum, we can generally expect that endorsement from family will lead to ongoing support whether it is offered in wisdom or ignorance. Under both conditions, family systems theory and self-perception theory present compelling arguments for why this may occur. Family systems are goal-seeking and seek to preserve the social relationships within the system and the spatial relationship between the family and the environment (White et al., 2015). Endorsement

and ongoing support preserve these fundamental goals in the family system while increasing the chances the entrepreneur can sustain the pursuit of new resources through venture creation.

H1: Family endorsement prior to venture start is positively associated with higher levels of family emotional support for an entrepreneur after venture creation.

The Recursive Influence of Business and Family

Although I have presented arguments that endorsement positively influences emotional support across a wide range of situations, there are circumstances that can attenuate the strength of this relationship. Remember that family members often do not just passively observe the effects of venture creation, but experience them firsthand. And experiencing the realities of venture creation and sustainment is a more difficult challenge than endorsing the ideas at a venture's start. These environmental exchanges at the interface of the venture and the family represent the recursive influences of the venture and family on each other (Jennings & McDougald, 2007). Venture-driven effects can manifest in all kinds of ways, from financial success to financial duress, from increased work-family balance to extended periods of family separation. Accordingly, the family's capacity to adapt to the external shocks emanating from the venture environment and the support and encouragement they offer the entrepreneur in-turn may tip the delicate balance towards keeping the doors open on a business or deciding to shut it down (Hsu et al., 2016).

Two external shocks are characteristic of new venture creation—extreme work hours and financial strain (i.e., changes in standard of living). Both are common occurrences in the context of venture creation and sustainability. In each situation, the family system is deprived of

valuable resources—the entrepreneur's time and energy, and perhaps more importantly finances, which are directly convertible to any number of other resources valued in the family system. In the case of a fledgling, struggling or declining venture, they most likely occur together. The nature of extreme work hours and financial strain pry open the boundaries between business and family, and these environmental inputs must be processed by the family system. Furthermore, work hours and financial strain may impact the family immediately, and their effects may accumulate over time as relationships are strained and family resources are depleted.

Extreme work hours increase the potential for direct conflict with the family system (Greenhaus & Beutell, 1985) and are characteristic of entrepreneurship (Beutell, 2007), especially as founding as entrepreneurs work to overcome liabilities of newness and smallness and build the business (Danes, Craft, Jang, & Lee, 2013). Stories in the popular press frequently document this occurrence. Entrepreneurs may be required to travel regularly, or more likely, they must pick up any slack in the business, because they are under-resourced. When they are home, the entrepreneur may be frequently distracted by business concerns. Business commitments may inhibit prior family routines, such as regular vacations or family outings. Additionally, family members may be forced to take on additional responsibilities previously accomplished by the entrepreneur.

Entrepreneurs are often obsessively passionate about the business, driven to pursue their venture goals to the detriment of other facets of their life (Murnieks et al., 2016; Murnieks, Mosakowski, & Cardon, 2014). The ability to adequately care for family members requires a minimum level of cognitive, emotional, and material resources. As the entrepreneur becomes more consumed with the business, their caregiving behavior and investment in the family is likely to suffer (Collins et al., 2010). In this way, the business drains the cognitive and

emotional resources necessary to care for and attend to the needs of those in the family (Wood, Saltzberg, & Goldsamt, 1990). This is a direct threat to the bi-directional social support that family members depend on in the context of stressful life events (Collins et al., 2010). Hence, extreme work hours potentially diminish the requisite variety within the system and diminish the family's ability to respond and adapt to other environmental inputs.

However, family members will likely process extreme work hours differently, depending on the nature of their relationship with the entrepreneur. Some family members, such as the entrepreneur's spouse, may depend heavily on the entrepreneur to meet physical and emotional needs characteristic of a marriage and family. In another situation, the entrepreneur's parents may live across the country and experience minimal impact from extreme work hours. Furthermore, the system as a whole may process work hours differently, based on the existing family paradigm (Reiss, 1981). Some family systems may have already adapted to extreme work hours maintained in previous jobs. In this case, extreme work hours in the context of entrepreneurship require minimal overall system adaption.

Financial stress (i.e., changes in standard of living) increases strain, rates of depression and other adverse events in the family (Vinokur, Price, & Caplan, 1996). Multiple studies have shown that financial stress adversely affects intimate relationships and parenting (Brody & Flor, 1998; Ceballo & McLoyd, 2002; Conger et al., 1990), which impacts child outcomes including behavior problems (Linver, Brooks-Gunn, & Kohen, 2002). These are examples of down line systemic effects of environmental input disrupting a family system. Even if these changes are relative, meaning that the family still has adequate financial resources to fall back on, the primacy of resource loss principle in conservation of resources is relevant. Resource loss is more salient then the potential for gaining back those same resources. A household standard of living

change can impact the family system in at least two ways: (a) decreased financial resources needed to maintain expected quality of life, and (b) decreased requisite variety in the family system to deal with other environmental inputs as highlighted above.

The boundaries of the family afford little protection against the impacts of either extreme work hours or financial strain, because new venture creation and sustainability tends to make boundaries between work and family more permeable. A primary source of family stress is extreme work hours and a change in financial status, which can lead to an alteration in relational dynamics, relationship tension, loneliness and isolation (Cieri, Dowling, & F. Taylor, 1991; Lazarova, Westman, & Shaffer, 2010). These are all potential triggers for a family member to reconsider the hierarchy of goals driving family functioning. An efficient form of negative feedback from the family member to the entrepreneur is a reduction in emotional support. This feedback serves to reorient the system towards primary goals. Continuing to provide the same level of emotional support while the family fails to adapt to the venturing process constitutes positive feedback (i.e., deviation amplifying) to the entrepreneur. This positive feedback pushes the system further away from valued family goals. While the rule of transformation established by endorsement may remain in place, both extreme work hours and a financial strain will attenuate its effect on emotional support.

H2: Entrepreneurial work hours moderate the relationship between family endorsement and family emotional support, such that increasing work hours weakens the positive relationship between family endorsement and family emotional support.

H3: Household standard of living change moderates the relationship between family endorsement and family emotional

support, such that a decreased (increased) standard of living weakens (strengthens) the positive relationship between family endorsement and family emotional support.

Emotional support from family members is a family system output that serves as input to the entrepreneur in the venture environment. It is important to remember that the family system's relationship with the venture is reciprocal, and that by nature, venturing makes boundaries between work and family more permeable. The family may be impacted by external forces exerted by the venture, as just argued, but the family also shapes and selects its environment (Cox & Paley, 1997). As stated at the beginning of this dissertation, entrepreneurs create and sustain businesses within a web of relationships, and the most important web of relationships is often their family (Aldrich & Cliff, 2003; Edelman et al., 2016). Family relationships provide a source of security, identity, purpose and support, and all of these elements potentially become salient in the highly uncertain and volatile environment of new venture creation. As highlighted in the chapter 1, during periods of individual or collective turmoil and stress, family members are often the ones to whom people turn for the necessary support to persevere (Collins et al., 2010). Thus, family dynamics are powerful influences on the individual and may exert changes in our core beliefs, which influence our goals and our motivations to pursue those goals (Cox & Paley, 1997).

High levels of emotional support from family members signal that processes within the family system are functioning properly, and the family is in agreement and on track towards system goals. This input to the entrepreneur in the venture environment indicates that the effects of the business on the family are within acceptable tolerances—both systems are in equilibrium. Additionally, the family is a buffer against the volatility and stress of the venture environment.

When the family system is functioning well, family support serves to enhance business performance (Greenhaus & Powell, 2006; Powell & Eddleston, 2013). This is especially clear when an entrepreneur and family member share common goals for the business. Goal congruence facilitates the availability and release of important family resources—human, financial, and social—that may serve to enrich both the business and the family (Jang & Danes, 2013).

However, when family members decide to withdraw emotional support for the venture, this is a strong signal to the entrepreneur that the venture is adversely impacting the family system beyond acceptable tolerances. The impact of emotional support on turnover intentions in normal employment is well documented (Boyar, Maertz Jr, Pearson, & Keough, 2003; Nohe & Sonntag, 2014). In close relationships, family members assist one another in coping with stressful life events through safe haven support, and enable one another in their pursuit of personal goals though secure base support (Collins et al., 2010). Low levels of emotional support for the venture indicate that the realities of the venture are in conflict with valued goals of the family member. Therefore, the entrepreneur must interpret this input and decide how to respond. In the new venture environment, this effect is enhanced. The need for family support is critical to sustaining a new venture, and withdrawal of that support is indicative of stress in the venture and the family. Drawing again on the primacy of resource loss (Hobfoll, 1989), entrepreneurs are likely to consider alternative employment options when family support is withdrawn to protect against the loss of valued family resources.

H4: Family emotional support is negatively related to an entrepreneur's business closure intentions.

Turnover intentions are associated with higher work tension (Grandey & Cropanzano, 1999). Work tension is defined as, "the process by which workplace psychological experiences and demands (stressors) produce both short-term (strains) and long-term changes in mental and physical health" (Ganster & Rosen, 2013, p.1088). Research has demonstrated that the quality and quantity of social support at work is effective in mitigating the impacts of work stress (Viswesvaran, Sanchez, & Fisher, 1999). Thus, individuals can draw on social support within the work domain to counteract the effects of stress caused at work. However, many entrepreneurs may be starting the business alone or with only a few employees. In some cases, these other employees or team members may be the primary source of work tension. Therefore, social support from family may take on greater importance in mitigating stress at work, because these family members are the only source of social support available to the entrepreneur. Furthermore, research at the interface of work and family has demonstrated that family social support has a direct effect on job and life satisfaction (Adams et al., 1996). Increased tension at work is also likely to impact motivation and performance in the venture (Jex, 1998).

H5: Family emotional support is negatively related to an entrepreneur's work tension.

The relationship between endorsement and venture sustainability (i.e., work tension and closure intentions) is theoretically mediated by family emotional support. That is, I have argued that endorsement will impact ongoing emotional support and variations in emotional support will impact venture sustainability. However, the relationship between endorsement and sustainability depends on ongoing interpersonal processes between the entrepreneur and various individuals within the family system. Endorsement is a pre-venture event that establishes rules that govern behavior, interprets environmental responses, and sets in motion the long-term operation of the

family system. However, it is an event that occurs before the realities of venture creation and sustainment have tested the adaptive capabilities of the family system. Ongoing emotional support represents the successful adaption of the family system to those realities. Thus, the long-term ongoing support process is what influences the entrepreneur's current motivation and behavior in the venture context. Even if the venture is not a top-tier goal for the family member, their early behavior via endorsement may influence subsequent attitudes regarding the venture and the resulting level of support. These rules govern system regulation and feedback that manifest as increasing or decreasing support in the family. This support crosses over permeable boundaries to influence the entrepreneur's work tension and business closure intentions.

H6: Family emotional support partially mediates the relationship between family endorsement and business closure intentions.

H7: Family emotional support partially mediates the relationship between family endorsement and an entrepreneur's work tension.

Increasing work hours should weaken the mediated effect of endorsement on closure intentions. Specifically, I have proposed that family support mediates the relationship between endorsement and closure intentions, but as work hours increase this relationship diminishes. A likely reason is that higher work hours will weaken the impact of endorsement on emotional support as the family system provides feedback to the entrepreneur and seeks to adapt to the venture environment. This results in attenuation of this mediated relationship.

H8: Entrepreneurial work hours moderate the indirect relationship of family emotional support in the relationship between family endorsement and closure intentions. Specifically, the mediated effect weakens as work hours increase.

Because of its effects on family system resources, a positive change in standard of living may also strengthen the mediated effect of endorsement on closure intentions as the entrepreneur is able to provide instrumental financial resources (Hobfoll, 1989) to the family system. Family support should then partially mediate the relationship between endorsement and closure intentions, bounded by standard of living changes for the entrepreneur's family. A likely reason is that when standard of living increases, the original endorsement decision becomes less important. In essence, when things are going well in the business, the family is likely to benefit from a net gain in resources and respond with continued emotional support for the business despite their initial endorsement level (Hobfoll, 1989). This assumes that these financial resources accrued to the family do not come at the expense of other resources that are more valued by the family (e.g., the entrepreneur's time and energy at home). Furthermore, when things are going well in the business, the entrepreneur is less likely to care what family members originally thought about the business because he or she requires less emotional support. Thus, financial resources, via the mechanism of standard of living change, may affect how endorsement translates into emotional support.

H9: Household standard of living change moderates the indirect relationship of family emotional support in the relationship between family endorsement and closure intentions. Specifically, the mediated effect strengthens as standard of living increases.

Family Endorsement and Venture Creation

Entrepreneurs must take action in order to gather the appropriate resources to bring a business into existence (Carter, Gartner, & Reynolds, 1996; Katz & Gartner, 1988; Shaver &

Scott, 1991). However, the process of venturing is inherently uncertain (Knight, 1921), meaning that any actions the entrepreneur takes have indeterminate outcomes, because they transpire over time and into a future that is unknowable (McMullen & Shepherd, 2006). Thus, the entrepreneur makes judgments between possible courses of action, and takes action (or inaction) based on inferences from the available information. Once they have decided to begin a venture, entrepreneurs can change the timing and method of roll-out in response to environmental contingencies or changes in risk. First, the entrepreneur can choose to act swiftly and enter the market sooner, or delay and gather more information (Choi et al., 2008). Second, the entrepreneur can choose to engage in the business full-time or decide to start part-time in order to mitigate the risk of venture failure.

Entrepreneurs have thresholds of uncertainty that motivate particular types of action such as the timing of business planning efforts (Liao & Gartner, 2006). I contend that an entrepreneur's level of perceived uncertainty will impact the timing and method of venture roll-out. That is, when uncertainty is high, entrepreneurs will delay entry until uncertainty is reduced to acceptable levels and they are confident that they can take successful action. In addition, entrepreneurs should adapt the roll-out of their businesses when uncertainty is higher to mitigate the risks of venture failure. For example, entrepreneurs may be more willing to consider hybrid entrepreneurship or moonlighting in response to greater uncertainty concerning a new venture.

I also propose that family endorsement moderates the relationship between uncertainty and venture creation, because it acts as external validation of high uncertainty conditions, and entrepreneurs value what close family members think. Thus, entrepreneurs are likely to adapt a venture roll-out decision (timing and method) when uncertainty is high and family endorsement is low. Specifically, family endorsement acts as a validation of uncertainty experienced by the

entrepreneur, strengthening their adaptation of timing or roll-out when the endorsement is consistent with the uncertainty they foresee, and weakening their adaptation of timing or roll-out when the endorsement is inconsistent with the uncertainty foreseen by the entrepreneur. Thus:

H10: Family endorsement moderates the venture uncertainty - venture roll-out timing relationship. Entrepreneurs are more likely to delay their venture roll-out timing when endorsement is low and uncertainty is high, and less likely to delay their venture roll-out timing when endorsement is high and uncertainty is low.

H11: Family endorsement moderates the venture uncertainty - venture roll-out method relationship. Entrepreneurs are less likely to leave their current job and start the venture full-time when endorsement is low and uncertainty is high, and more likely to leave their current job and start the venture full-time when endorsement is high and uncertainty is low.

Venture and Family Effects on the Entrepreneur

Finally, extreme work hours and financial strain (i.e., changes in standard of living) often have a negative influence on the family system (Vinokur et al., 1996; Voydanoff, 2004), they also should impact the entrepreneur in the venture context. Yet, additional research suggests that these effects may be attenuated (Michie & Williams, 2003). For example, increasing levels of emotional support should decrease entrepreneurial closure intentions and improve their affective state. What is unique to the entrepreneur in the venture context is the potential that work hours serve as a three-way interaction with standard of living changes and family emotional support. That is, increasing levels of emotional support decrease the entrepreneur's business closure

intentions and improve their affective state. However, a decrease in standard of living adds pressure on the entrepreneur and the venture, such that it weakens the relationship between emotional support and closure intentions and affective state. Extreme work hours may further exacerbate this relationship, as the entrepreneur is working relentlessly on a business that is draining family finances, negatively impacting the family. In this scenario, even if the family is emotionally supportive, the entrepreneur is more likely to experience negative affect and entertain business closure intentions.

> *H12: Work hours and standard of living change moderate the negative relationship between family emotional support and business closure intentions. Specifically, the relationship weakens (strengthens) as work hours increase (decrease) and standard of living decreases (increases).*
>
> *H13: Work hours and standard of living change moderate the negative relationship between family emotional support and the entrepreneur's affective state. Specifically, the relationship strengthens (weakens) as work hours decrease (increase) and standard of living increases (decreases).*

Summary

This chapter has drawn on family systems theory and theories of self-perception, social support and conservation of resources to offer 13 deductive hypotheses across three models regarding the impact of family endorsement on venture sustainability and venture creation. I began with the conceptual model found in Figure 3.1. This model offered nine hypotheses regarding the impact of endorsement on venture sustainability through ongoing emotional

support. It also examined how work hours and standard of living changes may disrupt the relationship between endorsement and emotional support and indirectly impact the long-term sustainability of the venture. Second, I offered two hypotheses regarding the impact of family endorsement on venture creation efforts (see Figure 3.2). This model predicted that family endorsement will moderate the impact that environmental uncertainty has on an entrepreneur's method and timing of venture roll-out. Finally, I offered two hypotheses regarding the impact of emotional support, standard of living change and work hours on the entrepreneur's closure intentions and affective state (see Figure 3.3). These hypotheses considered how family and business factors directly influence the entrepreneur. In the next chapter, I will outline and describe the methods I used to test these hypotheses.

CHAPTER 4. METHODS

Utilizing a three-study design, I addressed the role of family endorsement and its impact on venture creation and sustainability with nationally representative (e.g., entrepreneurs were sampled across 41 states in the U.S.) samples of established, new and aspirant entrepreneurs. As previously acknowledged in chapter 1, the results from a single study must be viewed with caution, because any conclusions regarding the validity and generalizability of findings are inherently limited. Replicated and tailored research designs facilitate more robust assessments of research findings; therefore, three different studies were used to test the hypotheses in this dissertation.

Study 1 utilized a field survey of entrepreneurs to investigate the pre-firm influence of family endorsement on venture sustainability. I label these entrepreneurs as "established" because nearly half the sample has previous entrepreneurial experience and the average venture is 16 years old. Hypotheses in study 1 are tested through a moderated mediation PROCESS model (Hayes, 2013)— also considered a first stage moderation (Edwards & Lambert, 2007)—of ongoing family emotional support after business start. I also examined environmental factors that serve as boundary conditions in the first stage of the model, including standard of living changes and work hours, stemming from business related factors that may influence the hypothesized relationship between family endorsement and ongoing emotional support from family members.

Studies 2 and 3 utilized a between-subjects experimental design to complement the field survey. While the field survey (Study 1) data are useful in understanding criterion-related effects associated with the variables in this dissertation, there are inherent limitations. For instance, the field survey asks respondents to consider historical events to answer questions about family

endorsement. While this provides some insight into causal relationships, the potential for recall bias raises concerns about the validity of these conclusions. However, any study utilizing survey data must consider the problems of non-response bias, and the innate limitations that retrospective designs carry. The use of constructive replication presents an opportunity to enhance the validity of the relationships identified in the field survey, and also establish clear causality needed to theory test (see Lykken, 1968). Consequently, the primary purpose of Studies 2 and 3 (Experiments 1 and 2) was to surmount the inherent limitations of the field survey data already collected and to aid in establishing causality in the underlying relationships examined in the field survey.

In Study 2 (Experiment 1), I utilized a true experiment between-subjects design and a sample of aspirant entrepreneurs to determine the role of family endorsement and entrepreneurial uncertainty on venture creation strategy decisions. Aspirant entrepreneurs are those individuals who expressed intent to start a business within the next 12 months at the time of survey response. The set of hypotheses addressed with this experiment incorporate two dimensions of venture creation, including the timing and method of venture roll-out.

Finally, in Study 3 (Experiment 2), I utilized a true experiment between-subjects design and a sample of new entrepreneurs to explore the role of family support and standard of living changes on venture sustainability. These new entrepreneurs self-identified as starting their business within the previous one to five years at the time of survey response. The set of hypotheses in this experiment incorporate two dimensions of sustainability including the entrepreneur's intentions to close the business and the entrepreneur's work tension.

Study 1 – Field Survey

The Field Survey (Study 1) is designed to directly address two of the four primary research questions in this dissertation. First, it assessed the role of family endorsement in venture sustainability. Second, it examined how environmental conditions—namely work hours and standard of living changes—moderate the effects of endorsement on sustainability.

Sample Frame and Data Collection

The data used to address hypotheses 1-9 comes from an original field survey of U.S. entrepreneurs. The sample population was obtained through Qualtrics, LLC, which drew participants from an actively managed market research panel. Data were collected over the course of one month in three waves in May 2016. The survey was designed to take less than 10 minutes, and participants were compensated for their time. Pre-screened, likely eligible participants received a survey request through email. Volunteers were further screened for eligibility based on the following criteria: (a) they had to be at least 18 years of age, (b) not incarcerated, and (c) self-identify as an entrepreneur (i.e., currently running a business they founded themselves or as part of a team). Survey response times were tracked, and members completing the survey in less than two minutes were removed from the sample.

The agreement with Qualtrics, LLC, stipulated delivery of 225 usable surveys in wave one, with minimum retention of 150 in wave 2, and minimum retention of 100 in wave 3. The survey was initially taken by 286 individuals in wave 1 with 225 good completions, 193

individuals began the survey in wave 2 with 167 good completions, and 102 individuals began the survey in wave three with 100 good completions per contract requirements.[4]

The survey in wave 1 was unique and included initial demographics and measures of endorsement and support. The survey in waves 2 and 3 were exact replications of each other. The sample frame utilized in this research is automatically limited to the 167 participants retained in wave two, because the dependent variables are measured beginning in wave two. Therefore, of the 167 participants in wave two, 121 provided usable data for this study.

The entrepreneurs in this sample are on average 52 years old with 68% being married. Additionally, nearly half (47%) of the respondents are serial entrepreneurs who have started a business either alone or as part of a team in the past. The average business is 16 years old and has 11 employees.

Independent Variables

Endorsement. I used a single-item measure to assess endorsement from a set of family members. In line with Sackett and Larson (1990), single-item measures are appropriate when the construct is unambiguous to the respondent. Single-item measures are holistic and allow the respondent to consider what is most important to them in their response (Schjoedt, Renko, & Shaver, 2014). In this case, respondents have the latitude to consider what constitutes agreement in their individual family system apart from a priori assumptions made by the researcher through a multi-facet measure. Job satisfaction is an example of the superiority of a single-item measure

[4] Since I use bootstrapping in the statistical analysis, there was sufficient power for this sample size.

over a multi-item measure due to the efficiency and effectiveness of assessment and less bias (Bergkvist & Rossiter, 2007; Ironson, Smith, Brannick, Gibson, & Paul, 1989).

Respondents were asked in wave 1, "To what extent did the following individuals agree or disagree with your idea to begin a business venture?" They then rated three separate relationships—parents, spouse or partner, and relatives—independently on a five-point Likert scale, from 1 = *Strongly disagree*) to 5 = S*trongly agree*. Respondents could select "Not Applicable" for any relationship.

I used a comprehensive measure of family endorsement to capture important factors relating to endorsement at the family system level of analysis. In order to do this, family endorsement was calculated through a four-step process to incorporate the dimensionality of measures across three unique family relationships (i.e., spouse, parents, and other relatives), taking into consideration that respondents may report on 1-3 relationships. The dimensions of family endorsement included the tenor (i.e., positive or negativity) of endorsement, consensus (i.e., agreement among family members), and number of family members reported. The product of these measures represents a comprehensive measure of endorsement across the family system. In the final sample, 83 respondents recorded scores across all three relationships, 30 recorded scores on two relationships, and 8 on a single relationship only (5 = spouse only, 3 = relative only).

In step one of my calculation, I created a variable measuring the tenor (positive to negative) of the overall family endorsement score. In order to do this, I first calculated the average endorsement score for each entrepreneur. This was computed by adding the reported endorsement scores and dividing by the number of family relationships scored by the respondent. Average scores ranged from 1 = *Strongly disagree* to 5 = *Strongly agree*. Following this step, I

created a variable, which subtracted 3.1 from the average endorsement score. For example, a respondent with an average endorsement score of 4.3 would now have a score of 1.2 (i.e., 4.3 – 3.1 = 1.2). The number 3.1 was chosen because an average score of 3 on the five-point scale represents "Neither agree nor disagree" on the endorsement measure. I classified this score as an absence of endorsement and slightly negative. Thus, endorsement scores above 3.1 are considered positive endorsement and scores at or below 3.1 are considered negative endorsement. Thus, a respondent with an average endorsement score of 3 would now have a recalculated score of -0.1 (i.e., 3.0 – 3.1 = -0.1) to capture the negative tenor of endorsement numerically.

In step two, I created a variable measuring endorsement consensus, which assessed the level of agreement between family members regarding their endorsement. For example, an entrepreneur's parents may have strongly agreed with the decision to support the business while their spouse strongly disagreed. In order to calculate this variable, I took the absolute value of the difference in all reported endorsement scores and then added one.[5] For example, a respondent who reported scores of parent = 5, spouse = 3, and relative = 1 would have a score of 9 (e.g. |5-3| + |5-1| + |3-1| + 1 = 9). A respondent who only reported one score (e.g., spouse = 5) would have a score of one. After calculating the absolute value score, I reverse scored the solution by subtracting it from 9, so that higher consensus was represented by the upper end of the scale. Final consensus scores range on a scale from 1 = *lowest consensus* to 9 = *complete consensus*, representing the level of agreement among family members.

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[5] I added one to this number, because perfect consensus would equal zero otherwise, which is problematic for subsequent calculations.

In step three, I created a variable ranging from 1 to 3 representing the number of family members scored by the respondent (i.e., parent, spouse or partner, and relative).

Finally, in step four, I created a composite endorsement score representing the product of the variables just described (i.e., tenor x consensus x family members reported = endorsement). Scores on this scale range from -25.2 to 22.8. At the extreme positive end of the scale (i.e., 22.8), a respondent would have reported that all three family members "strongly agree" with the idea to begin the business venture. At the extreme negative end of the scale (-25.2), a respondent would have reported that all three family members "strongly disagree" with the idea to begin the business venture. This comprehensive family endorsement adds dimensionality and accounts for varying levels of endorsement scores, level of agreement among family members, and number of family members scored across all respondents.

In sum, a score of -25.2 means full consensus among three family members that they strongly disagree with the entrepreneur's decision to start the business. Whereas, a score of 22.8 means full consensus among three family members that they strongly agree with the entrepreneur's decision to start the business. The measure of endorsement does not allow for a score of zero.

Emotional Support. This variable was calculated through the same four-step process outlined in the endorsement measure. Respondents were asked in wave 1, "To what extent do the following individuals currently encourage or discourage you while you run your business (i.e., do they support you now that you are an entrepreneur)?" They then scored their parents, spouse or partner, and relatives, on a five-point Likert scale, from 1 = *Strongly discourage* to 5 = S*trongly encourage*. Respondents could select "Not Applicable" for any relationship. Seventy-two respondents recorded scores across all three relationships, 35 respondents recorded scores on

only two relationships, and 14 respondents reported on only a single relationship (4 = spouse only, 10 = relative only).

In the final step, I created a composite emotional support score representing the product of the variables created in the same manner as endorsement (i.e., tenor x consensus x family members = emotional support). Scores on this scale range from -25.2 to 22.8. At the extreme positive end of the scale (i.e., 22.8), a respondent would have reported that all three family members "strongly encourage" you while you run your business. At the extreme negative end of the scale (i.e., -25.2), a respondent would have reported that all three family members "strongly discourage" you while you run your business. In sum, this comprehensive family emotional support measure accounts for varying levels of support, level of consistent encouragement among family members, and number of family members scored across all respondents.

Moderators

Standard of Living Change. This item was assessed by asking entrepreneurs in wave 1, "How does your standard of living compare with before you began this business?" Responses are measured on a seven-point Likert scale, from 1 = *Much better* to 7 = *Much worse*). This item is reverse scored in the analysis to facilitate interpretation. Therefore, a higher number represents a more positive standard of living change.

Work Hours. This item was assessed by asking respondents in waves 1, 2, and 3, "How many hours do you work in a typical week?" Responses from all three waves were averaged to produce a measure of work hours.

Dependent Variables

Business Closure Intentions. This item was assessed in wave 2 with a three-item scale, and is designed to capture the closure intentions of the entrepreneur (α = .84). Wave 3 data on business closure intentions was used for participants who failed to respond in wave 2 but provided scores in wave 3. To measure business closure intentions respondents were prompted with the following statement, "The following questions ask about your feelings and health. Please indicate your level of agreement with the following statements." Items consisted of the following: "I often think about ending my business," "I intend to search for other opportunities outside of my firm," and "I intend to close my business in the near future." Responses were measured on a five-point Likert scale, from 1 = *Strongly agree* to 5 = *Strongly disagree*. Responses were averaged, and the final composite score was reverse coded, so that "1" represents low closure intentions and "5" represents high closure intentions.

Work Tension. This item was assessed in waves 2 and 3 with a six-item scale adapted from House and Rizzo (1972) job involvement measure, and is designed to capture the work tension experienced by the entrepreneur (α = .85). Responses were originally measured on a five-point Likert scale, from 1 = S*trongly agree* to 5 = *Strongly disagree*). Respondents were prompted with the following statement, "The following questions ask about your feelings and health. Please indicate your level of agreement with the following statements." Items included consisted of the following: (a) "My work tends to directly affect my health," (b) "I work under a great deal of tension," (c) "I have felt nervous before attending work-related meetings," (d) "If I had different work, my health would probably improve," (e) "I often 'take my job home with me' in the sense that I think about it when doing other things," and (f) "Problems with my work

have kept me awake at night." The final measure was reverse coded, so that "1" represents low work tension and "5" represents high work tension.

Controls

I utilized the following control variables to reduce the model's vulnerability to any spurious association. I control for venture related variables, including the venture's age, size, and performance relative to similar businesses, because research has shown these factors impact long-term survival and exit intentions (Bercovitz & Mitchell, 2007). Venture age is measured in years and venture size is measured by number of employees. Venture performance is assessed through a subjective measure of growth in profit compared to similar organizations from the perspective of the entrepreneur. I also control for individual-level factors including any previous entrepreneurial experience, age, sex, and marital status. Entrepreneurial experience has been shown to impact exit intentions (DeTienne & Cardon, 2012), and is measured using a dichotomous variable, 0 = *No* or 1 = *Yes*. Respondents were asked, "Are you a 'serial entrepreneur' (i.e., an individual who began more than one business alone or as part of a team and still operates at least one of those businesses)?" Age is an important control as entrepreneurs nearing retirement may express higher intentions to close their business. Gender has been shown to have an important impact across a variety of family and entrepreneurial outcomes (Eddleston & Powell, 2012). Finally, I controlled for marital status as this drastically alters the family system surrounding an entrepreneur where 0 = *Single* or 1 = *Married*).

Analytical Methodology

The theoretical model driving hypotheses 1-9 is a two-stage mediation model with moderation in the first stage. In short, the model combines both moderation and mediation.

Accordingly, I utilized a recently developed statistical inference method called conditional process analysis and the SPSS PROCESS macro (Hayes, 2013) to analyze the model. PROCESS is a regression-based path-analytic framework, which facilitates testing of multi-stage models involving moderation and mediation. This methodological technique emerged in the mid-2000s as a way to test the moderated effect of mediation and the mediated effect of moderation (see Edwards & Lambert, 2007; Muller, Judd, & Yzerbyt, 2005; Preacher, Rucker, & Hayes, 2007). Conditional process analysis combines both mediation and moderation and "focuses on the estimation and interpretation of the conditional nature (the moderation component) of the indirect and/or direct effects (the mediation component) of X on Y in a causal system" (Hayes, 2013, p. 10). PROCESS is an excellent tool to examine not just whether X effects Y but how this effect takes place. Conditional process analysis is already an accepted technique in management and entrepreneurship research (see Cole, Bedeian, & Bruch, 2011; Cole, Walter, & Bruch, 2008; Pollack, Vanepps, & Hayes, 2012; Yam, Klotz, He, & Reynolds, 2017).

Conditional process modeling (Hayes & Preacher, 2014), utilizes nonlinear bootstrapping (Edwards & Lambert, 2007; Preacher et al., 2007) to assess total, direct, and indirect moderating effects of causal, intermediary, and outcome variables. In Study 1, these variables included endorsement (causal variable), work hours, standard of living changes and emotional support (intermediary variables), and closure intentions and work tension (outcome variables). PROCESS modeling enables one to estimate and explore how a causal variable impacts an outcome variable through some number of intermediary variables, and estimates the paths, both direct and indirect, by which a variable transmits its effects. Additionally, PROCESS models allow estimation of how the size of those effects are conditional on different values of a moderator (Hayes & Preacher, 2014). Although similar to traditional mediation analysis (e.g.,

Baron & Kenny, 1986), PROCESS is not dependent on the sequential rule-based significance tests of these legacy analysis methods in order to establish mediation. Rather, indirect effects are computed and assessed directly, and nonlinear bootstrapping provides confidence intervals for these indirect effects.

Nonlinear bootstrapping is required because product terms from the coefficients representing the indirect effects are not normally distributed (Edwards & Lambert, 2007). Bootstrapping creates a picture of the sampling distribution of the indirect effect by treating the original sample (size *n*) as representative of the population (Hayes, 2009). It then repeatedly resamples, with replacement, the original sample to achieve the original sample size *n*, thus forming a new sample. This process is repeated *k* times, where *k* is some large number usually between 1,000 and 10,000 (Hayes & Preacher, 2014). Generally, the larger the number, the better with a negligible increase in efficiency above 10,000. This process generates an estimate of the sampling distribution of the indirect effects (Hayes, 2009), which is used to create a confidence interval.

Indirect effects are quantified as products of the regression coefficients linking a given predictor *X* (e.g., endorsement) to an outcome *Y* (e.g., closure intentions or work tension) through a mediator *M* (e.g., emotional support). These effects are the expected change in outcome *Y* based on a one-unit change in predictor *X*, through the mediator *M*. The direct effect outlines the effect *X* on *Y* independent of *M*. Subsequently, the indirect effects are modeled across levels of a hypothesized moderator (e.g., average work hours and standard of living change for Models 1 and 2). This defines the degree to which the indirect or mediated effects are conditional on the moderator. This produces conditional process effects, which are akin to simple slopes (Preacher et al., 2007).

Study 2 – Experiment 1

Study 2 (Experiment 1) is designed to test hypotheses 10 and 11, which address the impact of family endorsement on an entrepreneur's venture creation strategy, specifically, the method and timing of venture roll-out. In general, the objective of experimental research is to test the causal relationships between two or more variables. Experiments are a good choice of research methodology when the individual is the unit of analysis, which is the case in this study (Shaver, 2010). Experimentation has been a preferred tool for examining social behavior for more than a century, and the role of social cognition, attitudes, self-evaluation and interpersonal action clearly place entrepreneurship and the questions in this dissertation within the boundaries of social behavior (Shaver, 2010). My goal in both Experiments 1 and 2 is to strive for realism and to create conditions that lead participants to believe they are acting in a realistic scenario and responding as real people would (Carsrud & Brännback, 2014). Although, reading a scenario on a computer poses challenges to this goal, an advantage is that there are no experimenter effects on the participant. In sum, I believe utilizing an experimental methodology in Study 2 offers more reliable evidence regarding the potential causal relationship between family endorsement and entrepreneurial actions. In the following paragraphs, I will describe the sample frame and data collection procedure, then the experimental design and procedure.

Sample Frame and Data Collection

The sample frame used to address hypotheses 10 and 11 was collected from an original survey of aspirant entrepreneurs from across the United States. For this experiment, aspirant entrepreneurs are those individuals who intend to start a business for the first time in the next 12 months. I believe aspirant entrepreneurs are particularly relevant for the experimental conditions, because they are actively considering various factors driving the timing and method

of launching their venture. Furthermore, entrepreneurship is a pipeline. Thus, understanding aspirant entrepreneurs is important for understanding why people do or do not choose to begin new ventures. For this research, aspirant entrepreneurs have expressed intent to launch, which better addresses the question of how family endorsement impacts the venture launch strategy rather than whether or not to start the venture. In addition, these aspiring entrepreneurs are not full-time students, which enhances the generalizability of findings (Robinson, Huefner, & Hunt, 1991; Scandura & Williams, 2000). Since these aspirant entrepreneurs come from a wide variety of backgrounds, family contexts, venture plans and a host of other confounding factors, an experimental approach offers the ability to isolate and investigate any causal influence that endorsement may have on the venture creation strategy.

The sample population was obtained through a contract with Qualtrics, LLC, which drew participants from an actively managed market research panel. The survey was designed to take less than 20 minutes, and participants were compensated for their time. Compensation was coordinated and provided through Qualtrics, LLC. Pre-screened likely eligible participants received a participation request through email. Volunteers were then further screened for eligibility based on the following criteria: (a) at least 18 years of age, (b) not incarcerated, (c) not a full-time student, (d) had intentions to start a new venture within twelve months, and (e) had never started a business previously.

In total, 1,237 respondents started the survey. Respondents were screened out in the following sequence: 78 chose not to consent, 14 would not commit to providing thoughtful and honest answers, 23 expressed intent to start a business beyond the 12-month window, 326 had started a business in the past, and 132 identified as a full-time student. Of the remaining 664 respondents who consented, committed to honest and thoughtful answers, and met the specific

screening criteria, 453 were eliminated after failing an attention check question approximately nine questions into the survey. This question was designed to test whether respondents were reading the full question and following directions. A second attention check question was administered after the experimental scenario towards the end of the survey following a question related to personal income. This question simply asked, "How happy are you with receiving a large bill from the IRS?" Fifty-seven respondents were eliminated from the survey for answering "Somewhat happy" or "Extremely happy" to this question. Finally, four respondents were removed after indicating in a question following the experimental vignette because they did not plan to open a business. Thus, the final qualified sample size for this experiment is 150 aspirant entrepreneurs.

The mean age of these 150 aspirant entrepreneurs was 36 years old. Mean education level was a 2-year associates degree. Over 80% of the sample primarily identified as White or Caucasian, 10% as Black or African American, 1% as Asian, 3% as American Indian or Alaska Native and 6% other. Approximately 75% of the entrepreneurs were married and average household income across both married and non-married entrepreneurs was $80,000-$89,000 annually.

Experimental Design and Procedure

I utilized an experimental vignette (also called a questionnaire experiment) for Experiment 1 (see Tumasjan, Welpe, & Spörrle, 2013). The experimental vignette was presented to participants as part of a larger survey. Since participants identified as aspirant entrepreneurs, the survey questions addressed factors related to the specific venture they intended to start in addition to questions about the structure and nature of their family relationships. A series of demographic-related questions was presented following the

experimental vignette and associated questions and manipulation checks. Median response time for the survey and experiment was 27 minutes. The experimental vignette was placed after venture and family-related questions, since these questions required the aspirant entrepreneur to consider specific aspects of their business and family relationships that were germane to the experimental vignette. Demographic questions were placed at the end since they required the least amount of cognitive work.

A pilot test of the survey and experiment was conducted in two waves on approximately 30 participants. In the first wave of volunteers, 15 subject matter experts (i.e., doctoral students and professors in business administration sub-disciplines) and individuals outside academia with intentions to start a business in the future took the survey and experiment and provided feedback. In the second wave, the survey and experiment was soft launched through Qualtrics on 15 participants. These responses were not included in the final analysis, but helped establish the reliability of the experimental manipulations and manipulation checks. Additionally, pilot testing showed initial indications that dependent variables moved in the expected directions.

This experiment was constructed as a 2 x 2 between-subjects factorial design (see Figure 4.1). Participants were randomly assigned to one of four experimental conditions and instructed to carefully read an experimentally manipulated scenario presented as a vignette (see Mitchell & Shepherd, 2010; Tumasjan et al., 2013). The two factors evaluated in this experiment were the aspirant entrepreneur's level of uncertainty regarding the new venture at high and low conditions and the family endorsement of the entrepreneur's decision to launch a business at high and low conditions. Thus, the 2 x 2 factorial design yields four conditions that correspond to high and low levels of uncertainty and family endorsement.

In all four conditions, participants were presented with a short vignette describing generic circumstances surrounding a future business. Specific experimental instructions are provided in Table 4.1, and each experimental manipulation is provided in Table 4.2. The specific details surrounding the business were designed to be generic, affording the entrepreneur the ability to consider their business model and industry in the scenario. In each scenario, entrepreneurs are initially informed that they have identified a new business opportunity (Eckhardt & Shane, 2003), and they have the financial, human, and technical resources required to start the business. Following this general scenario, participants are then randomly assigned to one of the four experimental conditions outlined in Figure 4.1 and Table 4.2.

Independent Variables

Uncertainty. This factor was operationalized based on the work of McKelvie, Haynie, and Gustavsson (2011). More specifically, I used a type of uncertainty defined as state uncertainty, which describes the "perception by an individual that a particular component of the environment is unpredictable; more specifically, that one does not understand how the components of the environment are changing" (Milliken, 1987: 137). Under higher conditions of state uncertainty, an entrepreneur would have more difficulty predicting the future state of the environment in which their prospective business would operate (McKelvie et al., 2011). I utilized two environmental components in the vignette, customer demand and competition, which were described under high and low conditions. Regarding customer demand, aspirant entrepreneurs were told in the high uncertainty condition that customer demand is "likely" to fluctuate in the near term, and in the low uncertainty condition, demand is "unlikely" to fluctuate in the near term. Regarding competition, they were told in the high uncertainty condition that they have "few insights" into potential competitor responses, and in the low uncertainty

condition they are informed that they have “many insights” into potential competitor responses. It is important to note, as highlighted by McKelvie et al. (2011: 261), that “it is unlikely that uncertainty is ever objectively ‘low,’ our operationalizations are relative; that is, low levels reflect the ‘norm’ with regard to uncertainty, while high levels reflect extreme conditions.”

Family Endorsement. Endorsement from family members was operationalized in three steps across high and low conditions. First, all participants were informed that they had discussed their decision to start a business with the family members whose opinions were most important to them regarding their decision to start a business. This grounded endorsement in the context of an explicit conversation with the family members most relevant to the business creation decision. Second, participants were presented with a personally customized combination of the family relationships they considered to be most important to them. These specific family members were built into the vignette and customized to each participant, based on the participants previous responses to a series of questions earlier in the survey. These questions asked, whose opinion is “most important to you” regarding your decision to start your business? The question was repeated two more times with “2nd most important to you" and "3rd most important to you." Family members were listed in the vignette in the order of importance as selected by the participant. This step allowed participants to consider a similar set of family members most relevant to the venture context. Finally, in step three, participants were told that these family members all expressed strong approval of their plan to start the business in the high endorsement condition or strong disapproval in the low endorsement condition.

Following the experimental scenario and questions related to the outcome variables, participants were presented with two statements evaluating the effectiveness of the manipulations in the experimental vignette. The first stated, “According to the scenario, there is

high level of uncertainty associated with this business." Participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* and 4 = *Strongly agree*. The second manipulation check stated, "According to the scenario you read, family members approved of the decision to start this business." Again, participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* and 4 = *Strongly agree*.

Dependent Variables

Entry Timing. Following the experimental vignette, I assessed the entry timing decision of the aspirant entrepreneur with the following question, "Given the following options, when would you choose to start this venture?" Participants were then presented with seven choices. The first choice stated, "Never – I do not plan to open a business now." Four respondents were removed from the sample for making this selection. The remaining six choices presented entry timing options in bi-monthly increments ranging from 1-12 months (e.g. "1-2 months from now" to "11-12 months from now").

Entry Method. The aspirant entrepreneur's entry method was assessed by asking the entrepreneur two questions related to their likelihood of leaving their current job and starting the business either full- or part-time. Following the experimental vignette, participants were first asked, "How likely are you to keep your current employment and start this business part-time?" Next, they were asked, "How likely are you to leave your current employment and start this business full-time?" Responses were measure on a 7-point Likert scale, 1 = *Extremely unlikely* to 7 = *Extremely likely*. Responses to part-time scores were reverse coded and then averaged with responses to full-time scores. Thus, the scale measures the likelihood of starting the business full-time. Reliability scores were satisfactory ($\alpha = .83$).

Control Variables

I controlled for five factors that could potentially influence the entry timing and method decisions of study participants: risk propensity, marital status, family satisfaction, whether they were a necessity entrepreneur, and positive and negative affect. It was important to control for risk propensity, because participants with a higher risk propensity may be less susceptible to varying levels of environmental uncertainty or family endorsement. Risk propensity was assessed through a 7-item measure (Meertens & Lion, 2008). Example questions included, "I prefer to avoid risks" and "I usually view risks as a challenge." Responses were measured on a 5-point Likert, 1 = *Strongly disagree*, 5 = *Strongly agree*. Reliability scores were satisfactory (α = .77).

I controlled for marital status, because this indicates a different family structure than someone who is not married, potentially influencing the weight placed on uncertainty and endorsement by the aspirant entrepreneur. Marital status was assessed by asking participants, "Are you married or in a committed partnership?" where 0 = *No* and 1 = *Yes*. I also controlled for family satisfaction using a 10-item measure (Olson, 2004). Two example questions include, "How satisfied are you with: (a) "Your family's ability to be flexible" and (b) "The quality of communication between family members." Responses were measured on a 5-point Likert scale from 1 = *Very dissatisfied* to 5 = *Extremely satisfied*. Reliability scores were satisfactory (α = .93). Pre-existing levels of family satisfaction may indicate the weight or importance an aspirant entrepreneur places on the opinions of close family members.

I controlled for whether the aspirant entrepreneur was starting their business because they needed work and were unable to find another job (i.e., necessity entrepreneur). This was assessed through the question, "Please indicate the extent to which the following are important

motivations for you in starting this new business…I need a job and can't find another one." Responses were measured on a 5-point Likert scale, 1 = *No extent* to 5 = *A very great extent*. The urgent need to find work could heavily influence any considerations of uncertainty or family endorsement.

Finally, I assessed the respondent's self-rated mood through a shortened PANAS 10-item scale (Thompson, 2007; Watson, Clark, & Tellegen, 1988). Participants were asked, "How do you feel at this moment?" Responses were measured on a 5-point Likert, 1 = *Does not describe me* to 5 = *Describes me extremely well*. Negative affect (NA) was assessed across five items: upset, hostile, ashamed, nervous, and afraid ($\alpha = .69$). Positive affect (PA) was assessed across five items: alert, inspired, determined, attentive, and active ($\alpha = .81$).

Manipulation Checks

Following the experimental scenario and questions related to the outcome variables, participants were presented with two statements designed to evaluate the effectiveness of the manipulations in the experimental vignette. The first stated, according to the scenario you read, there is a high level of uncertainty associated with this business. Participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* to 4 = *Strongly agree*. The second manipulation check stated, according to the scenario you read, family members approved of the decision to start this business. Again, participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* and 4 = *Strongly agree*.

Analytical Methodology

I utilized separate two-way ANOVA analyses for Experiment 1. Considering the two dependent variables in the experiment that represent the aspirant entrepreneur's venture creation

strategy, an initial two-way MANOVA was conducted. The main purpose of a two-way MANOVA is to facilitate understanding of an interaction between two independent variables on two or more combined independent variables. However, due to non-linearity and a low Pearson correlation ($|r| < .36$) between the dependent variables, separate two-way ANOVAs were more appropriate. The two independent variables included uncertainty and family endorsement. The two dependent variables included entry timing and method.

Study 3 – Experiment 2

Study 3 (Experiment 2) was designed to test hypotheses 12 and 13, which complement the second stage of Model 1 from the field survey (Study 1). This experiment further tests the direct relationship between family emotional support and business sustainability. Additionally, this experiment considers the impact that work hours and standard of living changes have on the relationship between family support and venture sustainability.

Sample Frame and Data Collection

The data used to address hypotheses 12 and 13 comes from an original, nationally representative pool of entrepreneurs from 41 states across the U.S. In order to be eligible to participate, volunteers had to be at least 18 years of age and not incarcerated. In addition, these entrepreneurs must have started a business in the preceding 12 to 71 months, consider the business their primary job (i.e., their primary source of income), and not be a student. This sample frame is particularly relevant for the experimental conditions, because these entrepreneurs are actively experiencing the real effects of starting and sustaining a new venture.

Access to the sample population was again obtained through a contract with Qualtrics, LLC, which drew participants from an actively managed market research panel. The survey was

designed to take 20 minutes, and participants were compensated for their time. Qualtrics, LLC, coordinated and provided participant compensation. Pre-screened likely eligible participants received a participation request directly from Qualtrics, LLC.

In total, 14,608 volunteers initially responded to the survey request. Respondents were screened out in the following sequence: 1,479 chose not to consent, 76 would not commit to providing thoughtful and honest answers, 484 reported owning a business that was less than 12 months old, and 8,676 reported that their business was over 6 years old (72+ months). Another 390 participants stated that the business was not their primary job, and 2,806 identified as a full- or part-time student. Three participants were identified as speeding through the survey and were eliminated. Early respondent percentages showed a disproportionate number of female survey responses, thus a 50-50 gender quota was established. In line with this quota, 23 females were screened out at the end of the study to meet the balanced gender quota. Seven participants were removed because the survey software failed to assign an experimental condition.

Of the remaining 664 respondents who consented, committed to honest and thoughtful answers, and met the specific screening criteria, 356 were eliminated after failing an attention check question approximately nine questions into the survey. This question was designed to test whether respondents read the full question and subsequent directions. A second attention check question was administered after the experimental scenario near the end of the survey in the demographic data collection segment of the survey. This attention check question simply asked, "How happy are you with receiving a large bill from the IRS?" Seventy-two respondents were eliminated from the survey for answering "Somewhat happy" or "Extremely happy" to this question. Finally, of the 236 remaining respondents, seven reported no money invested and no sales in their current business, and three respondents showed strong indications across the survey

of straight-lining their responses. Thus, the final sample size for this experiment was 226 entrepreneurs.

The mean age of these 226 entrepreneurs was 41 years old. Mean education level was 4.31 (between 2-year associate degree and 4-year bachelor's degree). Over 85% of the sample primarily identified as White or Caucasian, 6% as Black or African American, 5% as Asian, 2% as American Indian or Alaska Native and 2% other. Approximately 69% of the entrepreneurs were married. The average reported household income across both married and non-married entrepreneurs in the sample was $80,000-$89,000 annually.

Experimental Design and Procedure

Experiment 2 (Study 3) utilizes an experimental vignette methodology constructed as a 2 x 2 x 2 between-subjects factorial design with random assignment. The experimental vignette is embedded within a larger survey presented to study participants. Since participants in experiment 2 were active entrepreneurs, the survey questions initially addressed factors related to their current business venture in addition to questions about the structure and nature of their family relationships. Following these questions, participants were presented with the experimental vignette and associated questions followed by the manipulation checks. Finally, the survey concluded with series of demographic questions including open-ended responses for general feedback on the survey. The overall median response time for the survey and experiment was 30 minutes. The experimental vignette was placed after venture and family related questions, since these questions required the entrepreneur to consider specific aspects of their business and family relationships that were relevant to the experimental vignette.

Participants were randomly assigned to one of eight experimental conditions and instructed to carefully read an experimentally manipulated scenario presented as a vignette (see Mitchell & Shepherd, 2010; Tumasjan et al., 2013). The three factors manipulated in the experiment were family emotional support for the entrepreneur at high and low conditions, the positive or negative change in family standard of living resulting from the business, and the work hours associated with the business above or below average levels. Thus, the 2 x 2 x 2 factorial design yielded eight conditions that were assessed relative to the entrepreneur's business closure intentions and affective state (negative affect).

In all eight conditions, participants were presented with a short vignette describing circumstances surrounding a current business. Specific experimental instructions provided to participants are presented in Table 4.3, and each experimental manipulation is presented in Table 4.4. In each experimental scenario, entrepreneurs were initially informed that they had started their own business about 12 months ago. Following this general scenario, participants were then randomly presented with one of the eight experimental scenarios.

The general instructions and specific experimental vignette were presented to each participant in a single block with no other information or questions on the screen. Participants could progress past the experimental vignette on their own timeline by clicking a progress arrow at the bottom of the screen. Immediately following the vignette, participants were presented with a series of questions related to the experimental vignette.

A pilot test of the survey and experiment was conducted on 48 individuals across three waves. In the first wave, fifteen subject matter experts (i.e., doctoral students and professors in business administration) and individuals outside academia including active entrepreneurs completed the survey and experiment and provided feedback. In the second wave, 33

anonymous participants completed the survey and experiment through Amazon M-Turk for $5 compensation. Finally, after the initial live launch with Qualtrics, LLC, data collection was paused after the first 20 responses (10% of quota) to ensure the survey and experiment were operating correctly. All three waves of the pilot tests helped establish the reliability of the screening criteria, experimental manipulations and manipulation checks. Additionally, these pilot tests showed initial indications that dependent variables moved in the expected direction.

Independent Variables

Emotional Support. Family emotional support was operationalized based on the emotional dimension of the family support inventory (King et al., 1995) and slightly adapted to fit the entrepreneurial context (Eddleston & Powell, 2012) rather than workers in general. Participants were presented with three statements in both high and low conditions. In the high condition, participants read the following statements: (a) your close family members are proud of your efforts in the business, (b) they are really interested in what you are doing and take the time to listen when you talk about the business, and (c) in addition, they express concern when you have business related problems and offer encouragement and support. In the low condition, participants were told: (a) your close family members criticize your efforts in the business, (b) they express little interest in what you are doing and prefer not to hear you talk about the business, and (c) in addition, they express minimal concern when you have business related problems and offer very little encouragement or support. Statements were presented in paragraph form.

Standard of Living Change. This experimental factor was operationalized through two statements related to household income. Both statements were characterized at two levels representing a positive or negative change in standard of living since business creation. In the

positive change condition, participants read: (a) since starting the business, your monthly household income has increased, and (b) the business has provided more discretionary household income and the family is able to spend more money. In the negative change condition, participants read: (a) since starting the business, your monthly household income has decreased, (b) the business has reduced discretionary household income and your family has had to significantly reduce spending. These statements were presented in paragraph form following the emotional support condition.

Work Hours. The entrepreneur's work hours were operationalized through a single statement setting hours above and below average levels at the end of the vignette. For the above average level participants read the statement, "on average, the business requires you to work 60-70 hours a week." For the below average level, participants read the statement, "on average, the business requires you to work 30-40 hours a week." Average work hours were based on the average reported work hours from entrepreneurs in the field survey, 45 hours per week.

Dependent Variables

Closure Intentions. I measured business closure intentions in line with the recent work of Hsu and colleagues (2016). Following the experimental vignette, I assessed the entrepreneur's business closure intentions with the following question, "Taking everything in the scenario into consideration, how likely would you be to make a genuine effort to stop operating this business and work elsewhere?" Participants were then presented with a seven-point Likert scale ranging from 1 = *Extremely unlikely* to 7 = *Extremely likely*.

Affective State. The entrepreneur's affective state was assessed through the short form PANAS (Thompson, 2007; Watson et al., 1988). While the short form measures 10 items across

both positive and negative affect dimensions, I utilized the five items for the negative affect dimension, since it is most aligned with the theorizing in this experiment. The positive and negative affect dimensions are widely considered to measure separate constructs (Watson et al., 1988). In order to measure negative affect, I presented participants with the following statement, "After reading the scenario, indicate how you feel right now." Participants were then asked to rate 10 words on a five-point Likert scale from 1 = *Does not describe me* to 5 = *Describes me extremely well*. The five words included in the negative affect dimension included: Upset, Hostile, Ashamed, Nervous, and Afraid. Reliability scores for the negative affect dimension were satisfactory ($\alpha = .85$).

Control Variables

I employed two strategies to minimize the impact of nuisance and confounding variables across experimental conditions. The first involved the random assignment of participants to the various experimental conditions, which minimized the impact of confounds on the outcome variables. However, considering the lack of interpersonal engagement with participants, I also employed a second strategy, which includes potentially influential covariates in the univariate analysis. This step enhances the robustness of any findings by considering the presence of influential factors beyond the design of the experiment.

These nine factors included risk propensity, entrepreneurial experience, whether they were a necessity entrepreneur, gender, marital status, family satisfaction, household income, current work hours, and baseline affective state. Risk propensity was assessed through a 7-item measure (Meertens & Lion, 2008). Example questions included, "I prefer to avoid risks" and "I usually view risks as a challenge." Responses were measured on a 5-point Likert, 1 = *Strongly disagree* to 5 = *Strongly agree* ($\alpha = .72$). Entrepreneurial experience was assessed based on the

number of prior businesses the entrepreneur had started or helped to start. Respondents simply entered the number of prior business. I controlled for whether the entrepreneur was starting their business because they needed work and were unable to find another job (i.e., necessity entrepreneur). This was assessed through the question, "Please indicate the extent to which the following are important motivations for you in starting this new business…I need a job and can't find another one." Responses were measured on a 5-point Likert scale, 1 = *No extent* to 5 = *A very great extent*. The inability to find other work may influence closure intentions and affective state.

I controlled for marital status because this indicates a different family structure than someone who is not married, potentially influencing the importance of emotional support and the impact that standard of living changes and work hours have on close family members. Marital status was assessed based on the question, "Are you married or in a committed partnership?" (0 = *No* or 1 = *Yes*). I also controlled for family satisfaction using a 10-item measure (Olson, 2004). Two example questions include, "How satisfied are you with: (a) Your family's ability to be flexible and (b) The quality of communication between family members." Responses were measured on a 5-point Likert scale from 1 = *Very dissatisfied* to 5 = *Extremely satisfied*. Reliability scores were satisfactory ($\alpha = .86$). Pre-existing levels of family satisfaction may indicate the weight or importance an entrepreneur places on the emotional support provided by close family members and influence their overall affective state.

Family income scores were calculated by adding the annual income of the entrepreneur and their spouse (if applicable). These were scored in increments of $10,000, where 1 = *Less than $10,000* to 11 = *$100,000 to $149,000*, and 12 = *$150,000 or more*. Current work hours were assessed by asking entrepreneurs, to fill-in their average work hours—including time spent

at the office, time spent traveling, and time spent working at home—in their current business and any other current job (if applicable).

Finally, I assessed the respondent's self-rated mood through a shortened PANAS 10-item scale (Thompson, 2007; Watson et al., 1988). Participants were asked at the beginning of the survey (prior to the experimental vignette), "How do you feel at this moment?". Responses were measured on a 5-point Likert, 1 = *Does not describe me* to 5 = *Describes me extremely well*. Negative affect (NA) was assessed across five items: upset, hostile, ashamed, nervous, and afraid ($\alpha = .72$). Positive affect (PA) was assessed across five items: alert, inspired, determined, attentive, and active ($\alpha = .81$). There was no statistically significant different in mean scores across groups.

Manipulation Checks

Following the experimental scenario and questions related to the outcome variables, participants were presented with three statements designed to evaluate the effectiveness of the manipulations in the experimental vignette. The first stated, "the family in the scenario is supportive of my efforts in this business." Participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* to 4 = *Strongly agree*. The second manipulation check stated, "standard of living improved as a result of starting this business." Again, participants could select an answer on a Likert scale from 1-4, where 1 = *Strongly disagree* to 4 = *Strongly agree*. Finally, participants were asked, "if the average person works 40-50 hours per week, the work hours described in this scenario are:", 1 = *below average* or 2 = above average.

Analytical Methodology

I utilized separate three-way ANOVA analyses for Experiment 2 (Study 3). The three independent variables included emotional support, standard of living change and work hours. The two dependent variables included the entrepreneur's business closure intentions and affective state. As in Experiment 1, I considered the two dependent variables together in the early steps of a MANOVA. However, due to non-linearity and low a Pearson correlation ($|r| < .43$) between the dependent variables, the three-way ANOVA was determined to be more appropriate.

CHAPTER 5. RESULTS

This chapter will present the results of the three studies outlined in Chapter 4 in parallel order. These include Study 1 (Field Survey), Study 2 (Experiment 1), and Study 3 (Experiment 2). I have provided a summary of the hypotheses, results and key findings for each study in Table 5.46, which offers a succinct overview of the overall findings in the dissertation.

Study 1 – Field Survey

In Study 1, three models are presented. Models 1 and 2 (see Figure 5.1) tested hypotheses 1-9, while Model 3 (see Figure 5.3) is a post-hoc model developed after results from the field survey were analyzed. All hypotheses in Study 1 were tested with the PROCESS statistical software package (Hayes, 2013) in SPSS—using the bootstrapping-based analytic approach of Edwards and Lambert (2007)—described in Chapter 4.

Preliminary Analysis

Descriptive statistics, reliabilities, and correlations are provided in Table 5.1. Entrepreneurs in this sample were on average 52 years old with 68% being married. Additionally, nearly half (47%) of the respondents were serial entrepreneurs who had started a business either alone or as part of a team in the past. The average business is 16 years old and has 11 employees. Reliabilities reported on the diagonal in Table 5.1 show strong internal consistency across closure intentions (α = .84) and work tension (α = .85) measures.

As seen in Table 5.1, entrepreneurs who reported receiving family endorsement prior to starting their business also reported greater family support while they currently operated their business (r = .74, p < .01). However, there was no statistically significant evidence of a relationship between endorsement and closure intentions or endorsement and work tension.

Nevertheless, a lack of correlation between these variables does not rule out a potentially causal relationship (Bollen, 1989). Indeed, the effect of endorsement in models 1 and 2 is hypothesized to transfer through the mediated effect of emotional support and be contingent upon the moderating effects of work hours and standard-of-living change. The correlation table also revealed a relatively strong relationship ($r = .47$, $p < .01$) between the dependent variables, closure intentions and work tension. This evidence and the results from Models 1 and 2 drove the model re-specification that resulted in Model 3 (post hoc).

Since conditional process analysis depends on the standard OLS regression assumptions of independence, linearity, normality, and homoscedasticity (Hayes, 2013), I tested for these conditions across Models 1 and 2. These tests revealed independence of residuals, as assessed by a Durbin-Watson statistic (Model 1 = 2.07, Model 2 = 1.76). Separate multiple regressions were run to test for linearity on both outcome variables (i.e., closure intentions and work tension) and their predictors. Tests for linearity—as assessed by partial regression plots and a plot of studentized residuals against the predicted values for each outcome confirmed a linear relationship between independent variables and the dependent variables, closure intentions (Model 1) and work tension (Model 2).

A visual inspection of a plot of studentized residuals versus unstandardized predicted values confirmed homoscedasticity in Model 2, meaning that the residuals are equal for all values of work tension. However, this same test for Model 1 revealed the presence of heteroscedasticity. Heteroscedasticity can be the result of modeling bounded outcome variables using OLS regression, which is the case with the measurement of closure intentions (Hayes & Cai, 2007). In order to reduce the effects of heteroscedasticity, I used the heteroscedasticity-consistent standard error (HCSE) estimator of OLS parameter estimates (Hayes & Cai, 2007).

This is a proven and effective method of reducing the effects of heteroscedasticity on statistical inference (Wooldridge, 2000). I also tested for multicollinearity, which yielded tolerance scores well above the minimum (> .1) across both models, indicating that collinearity was not a problem.

Next, I checked for outliers by screening standardized residuals for any cases that were +/- three standard deviations from the mean. There was one outlier present, and after further examination the outlier was left in the analysis. I also checked the Cook's Distance for leverage points in the data and three existed above a leverage value of .5. Examining this data more closely revealed inconsistencies in the respondents' answers, calling into question the validity of the response. These three leverage points were removed from the data resulting in a final sample size of 118 entrepreneurs. Finally, the assumption of normality was met for both models, as assessed by a Q-Q Plot, confirming that standardized residuals were normally distributed. In sum, all OLS assumptions were confirmed across both models with the exception of heteroscedasticity in Model 1, which was addressed based on accepted correction techniques.

Hypothesis Tests

Figure 5.1 provides a simplified conceptual model for Models 1 and 2, which corresponds to hypotheses 1-9. Both models are equivalent in the first stage (X→M), but differ across the second-stage (M→Y), where Y_1 = closure intentions (Model 1) and Y_2 = work tension (Model 2). Figure 5.2 illustrates the statistical model for Models 1 and 2 where the paths (a_1, a_2…b_1, etc.) correspond to coefficients in Table 5.2 (Model 1) and Table 5.6 (Model 2), respectively. Unstandardized and standardized coefficients (standardized coefficients = Std. Coeff), bootstrap standard errors as well as 95% bias corrected bootstrapped confidence intervals (10,000 bootstrap samples) are provided in Tables 5.2 and 5.6. Coefficients on the left side of

the table correspond to emotional support (M) as the outcome variable, while those on the right side of the table correspond to closure intentions (Y_1) (Model 1) or work tension (Y_2) (Model 2) as the outcome variable. While coefficients are similar across the first stage (X→M) of Models 1 and 2, notice that the confidence intervals are slightly different. This is a result of the bootstrap confidence interval, which consists of 10,000 resamples with replacement. Since Models 1 and 2 do not meaningfully differ across the first stage (X→M), I will rely on Model 1 only for statistical inference on hypotheses 1-3.

Hypothesis 1 predicts that family endorsement prior to venture start is positively associated with higher levels of family emotional support for an entrepreneur after venture creation. The regression output for emotional support (M) in Table 5.2 highlights that R^2 for the model was .641 (64.1%), indicating that the variables in the model explain about 64% of the variance in emotional support. The model is statistically significant $F(12,105) = 16.781$, $p < .001$. Examining endorsement (X) on Table 5.2 and path a_1, the slope coefficient (standardized β) is .68, $p < .001$. Hence, a one-unit increase in endorsement leads to a .68 unit increase in emotional support. The conclusion is that endorsement has a large effect on emotional support (Cohen, Cohen, West, & Aiken, 2013). Hypothesis 1 was supported.

Hypothesis 2 was that entrepreneurial work hours moderate the relationship between endorsement (X) and emotional support (M), such that increasing work hours weakens the positive relationship between family endorsement and family emotional support. In order to test this interaction (XW), endorsement (X) and average work hours (W) were mean centered. Path a_4 in Model 1 on Table 5.2 shows an unstandardized β coefficient of .001, $p = .75$. Consequently, the lack of statistical significance indicates that average work hours does not

moderate the relationship between endorsement and emotional support. Hypothesis 2 was not supported.

Hypothesis 3 was that household standard of living change moderates the relationship between family endorsement and family emotional support, such that a decreased standard of living weakens the positive relationship between family endorsement and family emotional support. In order to test this moderation (XZ), endorsement (X) and standard of living change (Z) were mean centered. Path a_5 on Table 5.2 shows an unstandardized β coefficient of -.03, p = .48. Therefore, I cannot say with 95% confidence that the moderating effect of household standard of living is statistically different from zero. Hypothesis 3 was not supported.

Hypothesis 4 was that family emotional support is negatively related to an entrepreneur's closure intentions. In Table 5.2 and Figure 5.2, this relationship is represented by the path b_1 in the second stage of the model. Model 1 for closure intentions (Y_1) in Table 5.2 highlights that R^2 for the overall model was .202 (20.2%), and the model is statistically significant $F(9,108)$ = 4.38, $p < .001$. Examining emotional support (M) and path b_1, the standardized slope coefficient (β) is .39, p = .02. Thus, a one-standard deviation increase in support leads to a 0.386-standard deviation increase in closure intentions. This finding is unexpected as it moves in the opposite direction than I predicted. This could be due to a number of reasons that I will expound upon in the next chapter. Although the coefficient is significant, the sign is positive instead of negative. Therefore, hypothesis 4 was not supported.

Hypothesis 5 was that family emotional support is negatively related to an entrepreneur's work tension. In Table 5.6 and Figure 5.2, this relationship is represented by the path b_1 in the second stage of Model 2. The regression output for Model 2 and work tension (Y_2) in Table 5.6 highlights that R^2 for the overall model was .117 (11.7%), and the model is not statistically

significant $F(9,108) = 1.58$, $p < .13$. Ultimately, this is a very poor fitting model. Examining emotional support (M) and path b_1, the standardized slope coefficient (β) is .13, $p = .39$. Neither the model nor the coefficient are statistically significant, and it is worth noting that the sign moves opposite of the hypothesized direction. Hypothesis 5 was not supported.

Hypothesis 6 expected that family emotional support mediates the relationship between family endorsement and business closure intentions. In order to evaluate this hypothesis, I utilized a two-step evaluation and conditional process modeling to consider the direct and indirect effect of endorsement (X) on closure intentions (Y_1). The result of the direct effect can be found in Tables 5.2 and 5.3. For Model 1, the direct effect is unstandardized β = -.03, p =.08. The confidence interval (-.07, .00) includes zero; consequently, we cannot rule out that the effect may be zero. Thus, there is no statistically significant direct effect of endorsement on closure intentions. However, considering the marginal significance of this finding, I'll offer a practical interpretation of the coefficient. Two entrepreneurs that differ by one unit of endorsement (X) but are equal on levels of support (M) are estimated to differ by -.03 units on closure intentions (Y). More simply, in unstandardized form, a one-unit increase in endorsement (X) is estimated to decrease closure intentions by .03 units when controlling for support (M) (and the other controls). This direct effect does not reflect the influence of endorsement on closure intentions through support or the interaction of endorsement and the other moderators. Essentially, it only considers the direct path of endorsement on closure intentions while controlling for support, average work hours, standard of living change, and other controls in the model.

In the second step, I consider the indirect effect of endorsement (X) on closure intentions (Y_1) at values of emotional support (M). Table 5.4 outlines the effect sizes of endorsement (X) across levels of emotional support and the mean and +/- 1 standard deviation of the mean

centered values of average work hours and household standard of living. Effect sizes range between.03 and .03. None of the 95% bias corrected confidence intervals include zero, so we cannot reasonably say that the conditional indirect effect of endorsement (X) on closure intentions (Y_1) is zero. In sum, endorsement does not directly affect closure intentions, but it does transmit an indirect effect across all values of family support. Surprisingly, all values of the conditional indirect effect move in a positive direction. Still, family support mediates the relationship between endorsement (X) and closure intentions (Y_1). Hypothesis 6 was supported.

Hypothesis 7 stated that family emotional support partially mediates the relationship between family endorsement and an entrepreneur's work tension. The same two-step process as hypothesis 6 was used to evaluate this hypothesis. In this case, Table 5.7 shows that the direct effect of endorsement (X) on work tension (Y_2) is not statistically significant at (unstandardized) $\beta = -.18$, $p = .18$. However, the conditional indirect effects of endorsement (X) on work tension (Y_2) at all values of emotional support (M) have confidence intervals that include zero. Therefore, hypothesis 7 was not supported.

Hypothesis 8 stated that entrepreneurial work hours moderate the indirect relationship of family emotional support in the relationship between family endorsement and closure intentions. Specifically, the mediated effect weakens as work hours increase. This is considered a conditional indirect effect, because the indirect effect of endorsement (X) on closure intentions (Y_1) is conditional on different levels of average work hours. Table 5.4 shows effect sizes and confidence intervals of the indirect effect of endorsement (X) on closure intentions (Y_1) at different levels of average work hours (W). Since the interaction (XW) between average work hours (W) and endorsement (X) is mean centered, the slope of the relationship must significantly change as work hours increase from one standard deviation below (-15.338) the mean to one SD

above the mean (15.34) to indicate the presence of a conditional indirect effect. However, the slopes do not differ significantly. Therefore, while the mediating effect of emotional support (M) is still present based on confidence intervals that do not contain zero, this effect does not significantly change across different levels of average work hours. Hypothesis 8 was not supported.

Hypothesis 9 expected that household standard of living change moderates the indirect relationship of family emotional support in the relationship between family endorsement and closure intentions. Specifically, the mediated effect strengthens as standard of living increases. Once again, an examination of Table 5.4 reveals that the slope of the effect of endorsement (X) on closure intentions (Y1) does not significantly change when assessing the interaction (XZ) between standard of living change (Z) and endorsement (X). This interaction is mean centered, so the table shows standard of living change and the mean and plus/minus one standard deviation from the mean. Hypothesis 9 was not supported.

Post-Hoc Analysis

Unfortunately, sometimes a model does not hold up to the analysis as it was originally conceived. This is certainly the case with Study 1 (Field Survey) since only two of nine hypotheses were supported. However, there is evidence that endorsement impacts closure intentions and that emotional support mediates this relationship. Existing theory and evidence from the data suggest that an adjustment to the moderators in the model may offer better insight into the relationship between endorsement and closure intentions through emotional support. At this point, it is important to remember that the primary goal of this dissertation (and conditional process analysis) is not to find the best fitting model for the outcome variable. Rather, the primary goal is to best understand how a particular variable transmits its effect onto some

outcome. In this case, it is argued that the level of endorsement provided by an entrepreneur's family transmits its effects onto factors that impact venture sustainability, namely closure intentions, through emotional support.

Based on the correlation in Table 5.1 between closure intentions and work tension (.48, $p < .001$), the non-significant interactions in Models 1 and 2, and the non-significance of the second-stage in Model 2, I decided to re-specify Models 1 and 2 into the conceptual diagram represented in Model 3 (see Figure 5.3). In Model 3, I consider how work tension (W) moderates the relationship between support (M) and closure intentions (Y) in the second stage of the model. In addition, I re-specified work hours and standard of living change as control variables instead of interaction terms. The statistical model for Model 3 is provided in Figure 5.4. The impact of endorsement (X) on closure intentions (Y) in Model 3 is now a conditional indirect effect through moderation in the second stage of the model. That is, the model in this new form tests how endorsement (X) transmits it effects to closure intentions (Y) indirectly through emotional support (M) at varying levels of work tension (W).

Table 5.10 highlights the regression statistics for Model 3. Similar to Models 1 and 2, unstandardized and standardized beta coefficients, bootstrap standard errors (heteroscedasticity consistent) as well as 95% bias corrected bootstrapped confidence intervals (10,000 bootstrap samples) are provided. Coefficients on the left side of the table correspond to emotional support (M) as the outcome variable, while those on the right side of the table correspond to closure intentions (Y) as the outcome variable. The overall first stage model changed only slightly after removing the interactions between endorsement and work hours and endorsement and standard of living change. These variables now serve as controls and the model did not appreciably change, as it remains statistically significant $F(10, 107) = 18.64$, $p < .001$. The path a_1 between

endorsement (X) and emotional support (M) remains significant with a standardized $\beta = 0.67$, $p < .001$.

The second stage of Model 3 incorporates work tension (W) as a moderator between emotional support (M) and closure intentions (Y). This re-specification significantly improves the second stage in Model 3 over the second stage in Models 1 and 2. Overall R^2 for Model 3 more than doubles with an increase to .482 (48.2%), and the model is now statistically significant $F(13,104) = 10.575$, $p < 0.001$. Furthermore, all paths (c', b_1, b_2 and b_3) in the second stage are statistically significant. I will evaluate these paths individually. It is also worthwhile to note that average work hours is statistically significant as a direct effect on closure intentions, standardized $\beta = -0.019$, $p < 0.01$.

First, I will analyze the direct effect of endorsement (X) on closure intentions (Y) found in Table 5.11., where the unstandardized $\beta = -.03$ (standardized $\beta = -.23$ in Table 5.10), $p < 0.05$. This means that two entrepreneurs who differ by one unit of endorsement (X) but are equal on levels of support (M) and work tension (V) are estimated to differ by -.03 units on closure intentions (Y). In other words, a one-unit increase in endorsement (X) is estimated to decrease closure intentions by .03 units when controlling for support (M) and work tension (W), as well as the other controls in the model. This direct effect does not reflect the influence of endorsement on closure intentions through support or the interaction of support and work tension.

Second, I turn to Table 5.12 to consider the conditional indirect effects of endorsement (X) on closure intentions (Y). As mentioned previously, this is considered a conditional indirect effect, because the indirect effect of endorsement (X) on closure intentions (Y) is conditional on different levels of the interaction (MW) of work tension (W) and emotional support (M). Work tension and emotional support were mean centered prior to analysis. Table 5.12 reports three

levels of work tension, mean (.00) and plus/minus one standard deviation (-.86, .86) from the mean. Results reveal that one cannot reasonably rule out zero at mean levels (.00) of work tension and plus one standard deviation (0.86) from the mean as the 95% bias correct confidence intervals do not include zero. However, this is not the case for work tension at minus one standard deviation (-.86) where the confidence interval does include zero. Therefore, I determined that a conditional indirect effect of endorsement (X) on closure intentions (Y) through support (M) exists at mean and plus one standard deviation levels of work tension (W).

Finally, I plotted the simple slopes of the second stage moderation using conventional procedures (see Figure 5.5) at the mean and plus/minus one standard deviation levels of work tension. This allows me to consider the difference in slopes of the conditional indirect effects of endorsement (X) on closure intentions (Y). Contrary to expectations, this chart shows that the slopes of the mean and +1 SD conditions are significant, but they move in the opposite direction than expected. It appears that under average and high conditions of emotional support, entrepreneurs express higher closure intentions and that the slope of this relationship increases more sharply under high endorsement conditions than average endorsement conditions as work tension increases.

It is also important to note, as seen in Table 5.10, the discrepancy in signs between the direct and indirect paths between endorsement (X) and closure intentions (Y) in Model 3. The indirect path is the product of a_1 x b_1 (see Figure 5.2), which are both positive coefficients (a_1 =.65, b_1 = .04, a_1b_1= .03). However, the direct effects path from endorsement (X) to closure intentions (path c' in Figure 5.2) is negative (-.27 in Table 5.11). This pattern of coefficient estimates suggests the presence of mediational suppression. From an empirical standpoint, the direct and negative relationship between endorsement and closure intentions (controlling for

emotional support) is capturing the part of endorsement that is uncorrelated with emotional support. These uncorrelated terms move in the opposite direction from the indirect path. More thorough descriptions of this empirical suppression can be found in MacKinnon, Krull, and Lockwood (2000) and Shrout and Bolger (2002). Also, see Cole et al. (2008) for a recent example of the same empirical phenomenon on a structurally similar conditional process model.

Study 2 – Experiment 1

Study 2 (Experiment 1) is designed to test the effect of uncertainty and family endorsement on aspirant entrepreneurs' decisions about entry timing and entry method for their new venture. Hypothesis 10 stated that aspirant entrepreneurs are more likely to delay venture roll-out (i.e., entry timing) when endorsement is low and uncertainty is high. Hypothesis 11 was that aspirant entrepreneurs are less likely to leave their current job and start their business full-time (i.e., entry method) when endorsement is low and uncertainty is high. In order to test these hypotheses, I conducted separate two-way ANOVA tests to examine the effects of uncertainty and family endorsement on entry timing and method. The primary goal of a two-way ANOVA is to determine if there is an interaction between the independent variables. Separate two-way ANOVA tests were selected over a two-way MANOVA because the dependent variables were not linearly related and had low Pearson correlations. The two independent variables included uncertainty and family endorsement, each assessed at two levels, high and low.

Preliminary Analysis

Table 5.14 highlights the descriptive statistics for all variables in Experiment 1, including the overall sample and each of the four experimental conditions. Means for all variables were well within plus or minus one standard deviation of the overall mean across all experimental

groups. Additionally, this experiment has an unbalanced design due to the random assignment procedures, attention checks and quality control procedures. The final sample size was 150 aspirant entrepreneurs. Pearson correlations are presented in Table 5.15, and Table 5.16 lists individual factor means and overall simple main effect means.

Hypothesis Tests

Entry Timing. An analysis of residuals was completed to test the assumptions of the two-way ANOVA. This test indicated that there were no outliers, as assessed by inspection of a box plot. Entry timing scores were normally distributed for all group combination conditions of uncertainty and family endorsement. This was assessed for each group through calculation of a z-score (within +/- 2.58) from skewness and kurtosis scores and visual inspection of Normal Q-Q Plots. There was homogeneity of variances, as assessed by Levene's test for equality of variances, (p = .85). Control variables were not statistically significant in the main effects model (see Table 5.18).

As seen in Figures 5.6 and 5.7, there was no statistically significant interaction between uncertainty and family endorsement for entry timing score, $F(1, 150) = .02$, $p = .89$, partial $\eta^2 = .00$ (see Table 5.18). However, the non-significant interaction does not necessarily mean that an interaction effect does not exist in the population (Fox, 2015). In other words, not rejecting the null hypothesis does not mean one is accepting the null hypothesis. Nevertheless, considering the lack of evidence for an interaction, I moved to test the main effects of uncertainty and family endorsement on entry timing utilizing a Type III sums of squares (i.e., unique sums of squares) and retained the interaction term (Maxwell & Delaney, 2004). Using a Type III sums of squares accounts for any confounding effects due to the unbalanced design of the study (Stevens, 2012).

The results reported from a main effect analysis show unweighted marginal means, which are appropriate for an unbalanced design, because they consider the effect of one independent variable while disregarding the levels of the other independent variable. The analysis of the main effect of uncertainty indicated that there was not a statistically significant difference between high and low conditions, $F(1, 150) = 3.48$, $p < .06$, partial $\eta^2 = .02$ (see Table 5.18 and Figure 5.8). However, family endorsement did have a statistically significant difference between high and low conditions on entry timing, $F(1, 150) = 13.19$, $p < .001$, partial $\eta^2 = .09$ (see Table 5.18 and Figure 5.9). I ran all pairwise comparisons (see Tables 5.19 and 5.20) such that reported 95% confidence intervals and *p*-values are Bonferroni-adjusted. The unweighted marginal means of entry timing scores for high and low conditions of family endorsement, were 3.672 (*SE* =.20) for low endorsement and 2.69 (*SE* = .19) for high endorsement. High family endorsement was associated with a mean entry timing score 1.02, 95% CI [.46, 1.57] units lower than low family endorsement, a statistically significant difference, $p < .001$ (see Table 5.20). This indicates that those aspirant entrepreneurs in the low family endorsement condition expressed intent to delay entry by approximately two additional months compared to aspirant entrepreneurs assigned to the high family endorsement condition. Thus, hypothesis 10 was partially supported. Although, there was no interaction effect between uncertainty and family endorsement, and no main effect of uncertainty on entry timing, a low level of family endorsement causes aspirant entrepreneurs to express a desire to delay the timing of venture start.

Entry Method. Descriptive statistics for entry method can be found in Table 5.21. Residual analysis was completed to test the assumptions of the two-way ANOVA for entry method. This test indicated that there were no outliers, as assessed by inspection of a box plot.

Entry timing scores were normally distributed for all group combination conditions of uncertainty and family endorsement. Data were normally distributed as assessed by a Shapiro-Wilks test ($p > 0.05$). The assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances, $p = .39$. However, since sample sizes are approximately equal, relatively large, there is normality and the ratio of the largest group to the smallest group variance is less than three, I proceeded to run the two-way ANOVA because it is somewhat robust to heterogeneity of variance under these conditions (Jaccard, 1998).

There was no statistically significant interaction between uncertainty and family endorsement for entry method score, $F(1, 150) = .12$, $p = .73$, partial $\eta^2 = .00$ (see Table 5.23 and Figures 5.10 and 5.11). Since there was no statistically significant interaction, I moved to test the main effects of uncertainty and family endorsement on entry timing utilizing a Type III sums of squares (i.e., unique sums of squares) and retained the interaction term (Maxwell & Delaney, 2004).

The analysis of the main effect of uncertainty indicated there was not a statistically significant difference between high and low conditions, $F(1, 150) = .05$, $p = .83$, partial $\eta^2 = .00$ (see Table 5.23). In addition, family endorsement did not have a statistically significant difference between high and low conditions on entry method, $F(1, 150) = 1.02$, $p = .31$, partial $\eta^2 = .018$ (see Table 5.23). I ran all pairwise comparisons such that reported 95% confidence intervals and *p*-values are Bonferroni-adjusted. The unweighted marginal means of entry method scores for high and low conditions of uncertainty were 4.18 ($SE = .23$) for low uncertainty and 4.13 ($SE = .23$) for high uncertainty. The unweighted marginal means of entry method scores for high and low conditions of family endorsement were 4.03 ($SE = .24$) for low family endorsement and 4.27 ($SE = .23$) for high family endorsement. Thus, hypothesis 11 was

not supported. Neither uncertainty nor family endorsement had a statistically significant impact on the entrepreneur's decision to start the venture full-time.

Manipulation Checks

I conducted a formal test of the manipulation checks utilizing an independent-samples t-test. This allowed me to determine if there were differences in the mean score of each manipulation check (uncertainty and family endorsement) across high and low conditions of these variables in the experimental vignette. There were no outliers across both manipulations as assessed by inspection of a box plot, which included 73 participants in the high uncertainty factor, 77 in the low uncertainty factor, 78 in the high family endorsement factor, and 72 in the low family endorsement factor.

Regarding high and low conditions of uncertainty, there was homogeneity of variances as assessed by Levene's test for equality of variances ($p = .72$), where the null hypothesis tests that the variances are equal. The result for the high uncertainty agreement mean score was 1.514, 95% CI [1.04, 1.99] units higher than the low uncertainty agreement mean score. There was a statistically significant difference in the mean high uncertainty agreement score between those in the high and low uncertainty conditions, $t(151) = 6.26$, $p < 0.001$. This shows that participants presented with the high uncertainty experimental condition indicated stronger agreement with the statement that there was a high level of uncertainty associated with the business scenario they were asked to consider.

Regarding high and low conditions of family endorsement, there was heterogeneity of variances as assessed by Levene's test for equality of variances ($p < .001$). Therefore, I used the t-test for equality of means where equal variance was not assumed. The result for the high

family endorsement agreement mean score was 2.52, 95% CI [2.11, 2.94] units higher than the low family endorsement agreement mean score. There was a statistically significant difference in mean family endorsement agreement score between those in the high and low family endorsement conditions, $t(151) = 12.012$, $p < .001$. This shows that participants presented with the high family endorsement experimental condition indicated stronger agreement with the statement that there was a high level of family endorsement associated with the business scenario they were asked to consider.

Study 3 – Experiment 2

Study 3 (Experiment 2) was designed to test the effect of family emotional support, standard of living change and work hours on entrepreneurs' business closure intentions and affective state (negative affect) regarding their new venture. The three independent variables were assessed at two levels and included emotional support (high and low), standard of living change (positive and negative) and work hours (above and below average). Hypothesis 12 stated that work hours and standard of living change will moderate the negative relationship between family emotional support and business closure intentions. Hypothesis 13 was that hours worked and standard of living change will moderate the negative relationship between family emotional support and the entrepreneur's affective state (negative affect). To test these hypotheses, I conducted two separate three-way ANOVA tests to examine the effects of the independent variables on business closure intentions and the entrepreneur's affective state.

Preliminary Analysis

Table 5.30 highlights the descriptive statistics for all variables in Experiment 2, including the overall sample and each of the eight experimental conditions. Means for all variables were well within plus or minus one standard deviation of the overall mean across all experimental groups. Additionally, this experiment has an unbalanced design due to the random assignment procedures, attention checks and quality control procedures. The final sample size was 223 entrepreneurs after removal of three outliers which are discussed below. Pearson correlations are presented in Table 5.31.

Hypothesis Tests

Closure Intentions. Hypothesis 12 examines the influence of family emotional support, standard of living change, and hours worked on business closure intentions. A three-way ANOVA was conducted to evaluate the relationship between these variables. Descriptive statistics for closure intentions are presented in Table 5.32. An initial check for outliers and ANOVA assumptions yielded the following results. There were two outliers, identified from inspection of a box plot, which had a value greater than 3 box-lengths from the edge of the box. A specific analysis of these individual cases, revealed multiple inconsistencies in responses across the survey. Therefore, I determined that their response in the experimental vignette was unreliable, and they were removed from the analysis (for both dependent variables). A Shapiro-Wilks test of normality revealed that closure intentions was not normally distributed ($p > 0.05$) across seven of eight experimental groups, but this was expected due to the measurement of the dependent variable. Furthermore, ANOVA is relatively robust to non-normal data. There was heterogeneity of variances as assessed by Levene's test of equality of variances, $p < .001$. Although this is a violation of the assumption of homogeneity, since the three-way ANOVA is

somewhat robust to heterogeneity of variance, and the ratio of the largest to smallest group variance was less than three, this violation was deemed not to be a problem (Maxwell & Delaney, 2004).

Tables 5.33 and 5.34 show that baseline negative affect was the only control with statistical significance in the tests of between-subjects effects. With regard to the main effects, there was no statistically significant three-way interaction between emotional support, standard of living change, and work hours, $F(1, 204) = 0.34$, $p = .56$ (see Table 5.34). However, there was a statistically significant two-way interaction for emotional support and standard of living change, $F(1, 204) = 3.96$, $p = .048$ (see Table 5.34). The univariate tests of emotional support revealed that the simple main effect of standard of living change on entrepreneur's closure intentions was statistically significant at low levels of emotional support ($F(1, 204) = 10.512$, $p = .001$) and also at high levels of emotional support ($F(1, 204) = 40.63$, $p < .001$) (see Table 5.37). All pairwise comparisons were made for high and low levels of emotional support with a Bonferroni adjustment. As shown in Table 5.35, mean closure intentions in the low emotional support group were 3.72 ($SE = .22$) for the negative standard of living change group and 2.67 ($SE = .24$) for the positive standard of living change group, a statistically significant difference of 1.05, *95% CI* [.41, 1.68], $p = .001$ (see Table 5.36). Mean closure intentions in the high emotional support group were 3.52 ($SE = .21$) for the negative standard of living change group and 1.59 ($SE = .22$) for the positive standard of living change group (see Table 5.35), a statistically significant difference of 1.93, *95% CI* [1.33, 2.53], $p < .001$ (see Table 5.36).

It is important to highlight that entrepreneurs in the negative standard of living change condition did not indicate a statistically significant difference in closure intentions across high and low levels of emotional support, where this difference was .20, *95% CI* [-.40, .80], $p = .51$

(see Table 5.38). However, in the positive standard of living change condition, there was a statistically significant difference of 1.08, *95% CI* [.43, 1.74], $p = .001$ between high and low levels of emotional support (see Table 5.38).

Thus, hypothesis 12 was partially supported. Hypothesis 12 was that work hours and standard of living change moderate the negative relationship between family support and business closure intentions. Specifically, the relationship weakens (strengthens) as hours worked increases (decreases) and standard of living decreases (increases). While these results show no statistically significant interaction related to work hours, the interaction between emotional support and standard of living change is statistically significant and moves in the hypothesized direction. That is, entrepreneurs express higher closure intentions when their standard of living changes for the worse (negatively), although there is no statistically significant difference across levels of emotional support in this condition. However, when standard of living changes positively, there is a statistically significant difference between low and high levels of emotional support, where low emotional support increases entrepreneurs' closure intentions (see Figures 5.14 and 5.15).

Affective State. I expected in hypothesis 13 that the hours worked by an entrepreneur and a standard of living change resulting from starting the business would moderate the negative relationship between family emotional support and the entrepreneur's affective state. Specifically, the relationship strengthens (weakens) as hours worked decreases (increases) and standard of living increases (decreases).

A three-way ANOVA was conducted to evaluate the relationship between these variables. Descriptive statistics for affective state (negative affect) are presented in Table 5.40. An initial check for outliers and ANOVA assumptions yielded the following results. There was

one outlier, identified from inspection of a box plot, which had a value greater than 3 box-lengths from the edge of the box. A specific analysis of this case, revealed multiple inconsistencies in responses across the survey. Therefore, I determined that this participant's responses to the experimental vignette were unreliable, and they were removed from the analysis (for both dependent variables). A Shapiro-Wilks test of normality revealed that the entrepreneur's affective state was not normally distributed across six of the eight experimental groups; however, this was expected due to the measurement of the dependent variable. Since ANOVA is relatively robust to non-normal data, I continued with the analysis. There was heterogeneity of variances as assessed by Levene's test of equality of variances, $p < .001$. Although this is a violation of the assumption of homogeneity, since the three-way ANOVA is also robust to heterogeneity of variance, and the ratio of the largest to smallest group variance was less than three, this violation did not reasonably threaten the validity of the analysis (Maxwell & Delaney, 2004).

Tables 5.41 and 5.42 show that gender and baseline negative affect at time 1 were the only controls with statistical significance in the tests of between-subjects effects. Tests of between-subject effects reveal that there was once again no statistically significant three-way interaction between emotional support, standard of living change, and work hours, $F(1, 204) = .88$, $p = .35$ (see Table 5.42) across experimental groups. However, there was again a statistically significant two-way interaction for emotional support and standard of living change, $F(1, 20) = 4.34$, $p = .04$ (see Table 5.42). The simple main effect of standard of living change on the entrepreneur's affective state was statistically significant at low levels of emotional support ($F(1, 204) = 18.84$, $p < .001$) and also at high levels of emotional support ($F(1, 204) = 58.99$, $p < .001$; see Table 5.45). All pairwise comparisons were made for high and low levels of emotional support with a Bonferroni adjustment. As shown in Table 5.43, mean affective state in the low

emotional support group was 2.18 (*SE* = .10) for the negative standard of living change group and 1.53 (*SE* = 0.112) for the positive standard of living change group, a statistically significant difference of 0.65, *95% CI* [.36, .95], $p < .001$ (see Table 5.44). Mean affective state in the high emotional support group was 2.37 (*SE* = .10) for the negative standard of living change group and 1.28 (*SE* = 0.10) for the positive standard of living change group, a statistically significant difference of 1.08, *95% CI* [.81, 1.36], $p < .001$.

I expected in hypothesis 13 that hours worked and standard of living changes would moderate the negative relationship between family emotional support and the entrepreneur's affective state. While this hypothesis is not fully supported, the findings indicate that emotional support and standard of living changes may impact the entrepreneur's affective state. The interaction between emotional support and standard of living change is statistically significant and moves in the expected direction. That is, entrepreneurs in the low emotional support condition express a statistically significant difference in negative affect between the negative and positive standard of living change conditions. Furthermore, this difference is statistically significant and larger in the high emotional support condition (see Table 5.43 and Figure 5.16). In essence, entrepreneurs in this scenario were more emotionally sensitive to negative standard of living changes in the presence of high emotional support from family. Although, changes in emotional support do not seem to directly influence affective state, they become a factor when standard of living is impacted through business operation.

Manipulation Checks

I conducted a formal test of the manipulation checks utilizing an independent-samples t-test. This allowed me to determine if there were differences in the mean score of each

manipulation check (emotional support, standard of living change, and work hours) across the two conditions of these variables in the experimental vignette.

There were 125 and 137 participants in the low and high emotional support conditions, respectively. There was heterogeneity of variances as assessed by Levene's test for equality of variances ($p < .001$). The result for the high emotional support mean score was 1.50, 95% CI [1.29, 1.71] units higher than the low emotional support mean score. There was a statistically significant difference in mean high uncertainty agreement score between those in the high and low uncertainty conditions, $t(260) = 14.28$, $p < .001$. This shows that participants presented with the high emotional support condition indicated stronger agreement with the statement that family in the scenario they were presented with were more supportive of their business efforts.

There were 131 and 132 participants in the positive and negative standard of living change conditions, respectively. There was homogeneity of variances as assessed by Levene's test for equality of variances ($p = .06$). The result for the positive standard of living change mean score was 1.54, 95% CI [1.36, 1.79] units higher than the negative standard of living change mean score. There was a statistically significant difference in mean positive standard of living change score between those in the positive and negative standard of living change conditions, $t(261) = 16.27$, $p < .001$. This shows that participants presented with the positive standard of living change condition indicated stronger agreement with the statement that standard of living improved as a result of starting the business based on the condition presented in the scenario.

Finally, there were 131 and 132 participants in the above and below average work hours conditions, respectively. There was heterogeneity of variances as assessed by Levene's test for equality of variances ($p < .001$). The result for the above average work hours mean score was .48, 95% CI [.37, .58] units higher than the below average work hours mean score. There

was a statistically significant difference in mean above average work hours score between those in the above and below average work hours conditions, $t(261) = 9.12$, $p < .001$. This shows that participants presented with the above average work hours condition indicated stronger agreement with the statement that the work hours described in the scenario were above average.

Summary

In this chapter, I presented the results for Study 1 (Field Survey), Study 2 (Experiment 1), and Study 3 (Experiment 2). Study 1 utilized conditional process analysis to address hypotheses 1-9 relating to venture sustainability and the effects of business on family emotional support. Study 2 utilized a between-subjects 2 x 2 full factorial experimental design to address hypotheses 10 and 11, which investigate the impact of endorsement on venture creation decisions. Finally, Study 3 utilized a between-subjects 2 x 2 x 2 full factorial experimental design to address hypotheses 12 and 13, which examine the effect of family emotional support, standard of living change and work hours on the entrepreneur's closure intentions and affective state. I have provided a summary of the hypotheses, results and key findings from this chapter in Table 5.46.

CHAPTER 6. DISCUSSION

In this chapter, I discuss the key findings in this dissertation (see Table 5.46), contributions to theory and practice, policy implications, limitations and opportunities for future research. Together, these sections speak to the overall contributions of this research and meaningful ways to further our understanding of the recursive influences of family and entrepreneurship.

Key Findings

Anchored in family systems theory and complementary theories of self-perception, social support and conservation of resources, I find that family endorsement of an entrepreneur's decision to start a new business has an impact on the venture creation and sustainability efforts of entrepreneurs, although in some unexpected ways. Additionally, while this research did not find any evidence of the venture influencing ongoing family emotional support, results did show that when the venture adversely impacts family standard of living, the entrepreneur expresses higher closure intentions.

Endorsement, Business-to-Family Effects, and Venture Sustainability

The first set of findings draw from Study 1 and consider the impact of endorsement on venture sustainability through the recursive influence of the business on the family system. The first key finding is that family endorsement prior to venture creation has a significant effect (Cohen et al., 2013) on ongoing emotional support after the venture is created (see Study 1). This is consistent with the theorizing in this dissertation and extends previous entrepreneurship research involving family influence post-venture creation (Danes et al., 2013; Powell & Eddleston, 2013) into the pre-venture realm. Research has shown that family plays an important

role in the entrepreneurial process from venture creation (Edelman et al., 2016) through long-term venture sustainment or closure (Hsu, Wiklund, & Cotton, 2017). However, much of the research in family entrepreneurship has focused on the impact that family resources have on venture success (Danes & Brewton, 2012) while devoting less attention to the impact of family processes (Danes et al., 2013; Gudmunson & Danes, 2013) and virtually no attention has yet been given to family processes that occur prior to venture creation. The current finding affirms that family endorsement is a pre-venture process that not only occurs, but has a meaningful impact. It is worth noting that mean levels of endorsement across entrepreneurs in the field survey indicate that endorsement is a regularly occurring process within family systems.

While considering the relationship between endorsement and emotional support, it is worth mentioning the non-findings regarding venture effects on the family. It appears, at least in the field survey sample, that entrepreneurial work hours and standard of living changes have minimal impact on the relationship between endorsement and ongoing emotional support from family members. There are two potential explanations for this finding. The first explanation is that families who offer endorsement may be very resilient to venture threats to family resources. Endorsement may create a very strong rule of transformation within the family system that continues to output emotional support to the entrepreneur in the face of difficult challenges. An alternative explanation, however, may be the sample itself. Entrepreneurs were on average 52 years old in this sample and the average venture was more than 16 years old. This presents the potential for a success bias in the sample and a greater percentage of families who have successfully adapted to the venture environment over time. Thus, the non-finding is worthy of further exploration in samples of newer ventures and younger entrepreneurs.

The second key finding is that family emotional support had a statistically significant but positive effect on business closure intentions in Study 1. This is opposite of the hypothesized negative effect, but interesting when considering reasons why this may be the case. For instance, higher emotional support may be an indication of a more cohesive and satisfying family system that provides higher levels of safe haven and secure base support (cf., Parasuraman, Greenhaus, & Granrose, 1992). Thus, there are two alternative explanations for why emotional support may increase closure intentions rather than lower them. In the first explanation, the same family system that endorsed and supported the entrepreneur's decision to start the venture may also provide the safe haven the entrepreneur needs to accept failure in the venture context and a willingness to walk-away. The irony being that strong social support from family, while offering a secure launch pad to take risks, may also offer an easier escape when the venture becomes difficult.

The flip-side of this issue makes sense as well. Family systems characterized by low emotional support may indicate a less cohesive and satisfying family environment. In less cohesive family systems, members may pull support at the first sign of trouble, regardless of the level of their endorsement prior to venture creation. Additionally, entrepreneurs may be less apt to pursue endorsement in these types of family systems. Entrepreneurs who started their venture without endorsement or who received lower levels of endorsement may be intent on keeping their business open no matter what. For one, they may not have the same level of safe haven support to fall back on should they decide to close the business. They may anticipate the finger pointing of family members who were skeptical early on or the disapproval of family who look on with displeasure. This type of reaction is not uncommon in many family systems (see Walsh, 2003 for related discussion). Another possibility is that the entrepreneur may not find a strong

sense of identity and purpose within the family system, and the venture may afford the entrepreneur a sense of self-worth that cannot be found within the family. Consequently, the entrepreneur is willing to tolerate lower levels of family emotional support in sustaining a business.

Another explanation could be that some entrepreneurs derive the strongest parts of their identity from family rather than the venture (e.g., Hall, Kossek, Briscoe, Pichler, & Lee, 2013). When the venture begins to threaten the standard of living that the family has enjoyed, they are more likely to experience higher negative affect in the venture environment and express higher closure intentions. These entrepreneurs may be more family oriented (cf., Becker & Moen, 1999) and have a lower threshold for the sacrifices they ask family to make for the sake of the venture.

The third key finding is that ongoing emotional support mediates the relationship between endorsement prior to venture creation and business closure intentions (see Study 1). This confirms from a systems perspective that early endorsement impacts the long-term business closure intentions of entrepreneurs; although, it moves in an unexpected direction. However, drawing on the previous arguments, it is plausible to see why endorsement may be a marker for a family system that allows and enables an entrepreneur to withdraw more easily from the venture.

None of the theoretically-deduced hypothesized relationships were statistically significant with regard to work tension (see Study 1). However, the correlation between work tension and business closure intentions suggested that perhaps the model was mis-specified. Indeed, after re-specifying the model with work tension as a moderator of the relationship between emotional support and business closure intentions and considering work hours and standard of living change as controls, the model improved considerably. Post-hoc findings revealed that

endorsement has a conditional indirect effect on closure intentions through work tension. Once again, this moved in a counter-intuitive direction. In fact, the slope of the indirect effect of endorsement on closure intentions increased from mean to high levels of work tension. Thus, higher endorsement leads to increasingly higher closure intentions across mean and high levels of work tension. This is consistent with the previous explanation that endorsement may be a strong indication of family systems that facilitate both strong secure base and safe haven support. The same qualities of the family system that enabled the entrepreneur to take a risk, now enable the entrepreneur to retreat when the venture raises stress beyond acceptable levels.

Endorsement and Venture Creation

Study 2 evaluated the impact of endorsement in the entrepreneur's venture creation method and timing. Experimental results revealed that endorsement had a direct effect on the entry timing decisions of entrepreneurs. Specifically, aspirant entrepreneurs presented with a scenario that involved low levels of family endorsement chose to start their ventures later than those with high family endorsement. This is consistent with my theorizing and indicates that endorsement likely has a short-term impact on venture creation decisions. There are three potential conclusions to draw about the lack of impact that uncertainty had on entry timing. First, the lack of impact may be attributable to the difficulty describing this construct in a short experimental vignette in a way the respondents can translate into tangible action. Second, it may be that uncertainty just does not matter when aspirant entrepreneurs are presented with changes in family endorsement. Environmental uncertainty may simply be an expected part of the venture creation process. In this case, family endorsement becomes the driving force behind the entry timing decision. Third, individuals vary in their risk preferences, and it is possible that the

uncertainty manipulations were not powerful enough to surmount the innate risk tolerances of the participants, even with random assignment to conditions.

It is interesting that neither uncertainty nor family endorsement impacted the entry method decisions of entrepreneurs. Perhaps family endorsement had no statistically different impact on the full- or part-time entry method of entrepreneurs because starting the business at all was off the table until endorsement is achieved.

Emotional Support, Business Effects on the Entrepreneur and Venture Sustainability

Study 3 evaluated the moderating influence of work hours and standard of living change on the relationship between family emotional support and venture sustainability. Key findings from the experimental results revealed that entrepreneurs expressed higher closure intentions when their standard of living changed for the worse, although there was no statistically significant difference across levels of emotional support in this condition. It appears that when the business is adversely impacting the household standard of living, the entrepreneur "feels the heat" regardless of the emotional support they are getting from home. However, when standard of living changed positively, there was a statistically significant difference between low and high levels of emotional support, where low emotional support increased closure intentions. This finding seems to confirm that sustaining the business is about more than just the bottom line (Hsu et al., 2016; Hsu et al., 2017). If the business is going well, but family are unhappy, the entrepreneur is sensitive to this feedback from the family system.

Another key finding from Study 3 suggests that entrepreneurs are more emotionally sensitive to a decrease in standard of living when family emotional support is high. That is, they reported higher negative affect in this condition. Although changes in emotional support did not

seem to directly influence the entrepreneur's affective state, they became a factor when standard of living was impacted through business operation. This finding lends support to the evidence from the field survey, that entrepreneurs in families characterized by greater emotional support may be more impacted by negative effects from the business, especially when these effects impact their household. This finding also supports the predictions of family systems theory that systems providing high levels of support also are more sensitive to feedback from work domains.

In sum, these findings suggest that family endorsement of an entrepreneur's decision to start a new business has an impact on the venture creation and sustainability efforts of entrepreneurs, although in unexpected ways. Additionally, while this research did not find any evidence of the venture influencing ongoing family emotional support, results showed that when the venture adversely impacts family standard of living, the entrepreneur expresses higher closure intentions and experiences a higher negative emotional state.

Contributions

Contributions to Theory

This dissertation has contributed to theory in entrepreneurship research in at least three ways. First, current theory in entrepreneurial decision making does not fully consider the important role of family process (McMullen, 2015), and in particular, those that occur prior to venture creation. This dissertation introduces family process as an important factor in the sequence of decisions and interlaced activities that characterize critical parts of the entrepreneurial process (Shepherd et al., 2015; Wood et al., 2017) — namely venture creation and sustainability. These findings suggest that entrepreneurial decision making is influenced by family related factors such as endorsement, emotional support and standard of living changes and

these factors influence the emotional state of entrepreneurs, which is an important factor in decision making (Cardon, Foo, Shepherd, & Wiklund, 2012).

Second, I evaluated how family endorsement impacted an entrepreneur's business closure intentions (i.e., sustainability) through the ongoing role of emotional support from family members. Emotional support has consistently been a non-significant finding in studies of family support for entrepreneurs that focus on venture performance outcomes (Eddleston & Powell, 2012; Powell & Eddleston, 2013). While these findings do not build an air tight case for the role of emotional support, they suggest that emotional support is a factor worthy of further consideration.

Third, this study builds theory and understanding of the recursive influence of business and family. Current family entrepreneurship literature fails to adequately consider how venture outcomes influence the family (Jennings et al., 2013). Evidence from multiple streams of literature, including management, entrepreneurship and family business, has found that family-related phenomena impact important venture outcomes including performance and survivability (Edelman et al., 2016; Van Auken & Werbel, 2006; Werbel & Danes, 2010). Family and business interact in a recursive fashion over time as resources move across domains with both beneficial and detrimental consequences (Westman, 2001). Interestingly, in this study it seems to be the entrepreneur who is most impacted by the adverse effects of the business.

Practical Implications

These findings have implications for practice. Currently, we have very limited data to explain how pre-venture family processes involving an entrepreneur and close family members impact any venture related process. The findings from this study show that they are a relevant

consideration in pre-venture deliberations, not only for the timing of venture roll-out, but also for long-term sustainability. Small business consultants and family therapists can leverage these findings to help educate entrepreneurs about the potential impact that strong family support may have on the entrepreneurial process. While this support may be a great advantage in overcoming the uncertainty of entrepreneurship, it may also serve as a pre-mature escape when things get tough.

Finally, entrepreneurship support programs have tended to concentrate on practical business skills that equip entrepreneurs to start and sustain successful ventures. While these are beneficial, there is little if any training focused on family factors that constrain or enable an entrepreneur to start and sustain their business more successfully. This research serves to redirect attention towards another set of factors that are also important, namely the relational processes between family members and identifying which family relationships may be most crucial to business success (Shulman & Connolly, 2013). Although, the findings here present unexpected results on the indirect relationship between endorsement and closure intentions, the strong direct relationship between endorsement and emotional support suggest it may be beneficial to encourage all entrepreneurs to openly discuss the business creation decision with close family members. A practical step is guiding entrepreneurs in important points to discuss with family members prior to launching a business. Perhaps more importantly, these training programs can include the relevant family members in business planning efforts and preparation for the demands of new business creation. Based on the theorizing about endorsement in this dissertation and its effect on emotional support, training programs that help families establish common goals for the business and build healthy communication patterns may be two of the most important objectives on which to focus.

Implications for Policy

Policy makers may be able to use results from this study to fill critical knowledge gaps that ultimately shape policy and legislation, enhance existing entrepreneurship support programs, or create new initiatives that enable more entrepreneurs to create thriving sustainable businesses while maintaining healthy family relationships. Every entrepreneur must start a business for the first time, and most do so within the context of valued family relationships. Policy makers should consider funding programs through Small Business Development Centers and other organizations that prepare entrepreneurs to meet market challenges, and also include and prepare important family members for the entrepreneurial journey.

Limitations and Future Research

Limitations

This dissertation is certainly not without limitations. I will highlight three of the most important. The first limitation is the sampling frame in Study 1 (Field Survey) and to a lesser extent Study 3 (Experiment 2). This is not a truly randomized sample, although the relatively large sample size in Study 1 and especially Study 3 minimize the likelihood that data collection would compromise the generalizability of the findings beyond the set of entrepreneurs who are starting smaller ventures. I relied on Qualtrics, LLC., to find respondents for all three studies. While these participants were pre-screened and rigorously quality checked to ensure they met the sampling requirements, there are potential vulnerabilities. For one, the data is likely range restricted. It is doubtful this sample population includes an accurate representation of time pressured or highly stressed entrepreneurs. While Qualtrics provides compensation for the participants' efforts, time is an important and limited resource in the world of venturing—as

argued in this research. In addition, entrepreneurs who are financially successful might be underrepresented while those who are struggling financially may be over-represented. Finally, Study 1 is characterized by a success bias as the average age of businesses in this sample is 16 years old. Future research efforts based on completely randomized sampling, can offer a more robust and generalizable corroboration of these findings.

The second limitation concerns the measurement of endorsement in Study 1. As I explained in Chapter 2, there are at least two different ways to consider family endorsement—as an aggregate measure across the whole family or by examining specific relationships within the broader system. In this study, I considered endorsement as an aggregate measure among pre-identified family relationships. These included the spouse, parents, and other relatives. Two strengths of this measure of endorsement are it adjusts for the number of relationships reported and allows flexibility in who the entrepreneur considers as other relatives. However, there are two important limitations. First, the measure assumes the spouse and parent are two of the most influential measures in family endorsement, and by extension, only one other relative matters. Second, this measure of endorsement does not allow the entrepreneur to weight the importance of endorsement based on a specific relationship. The assumption is that all relationships carry the same level of influence in terms of their endorsement. This is an avenue for future exploration in endorsement research.

The third limitation to consider is the assessment of endorsement in Study 1. Endorsement was measured from the retrospective opinion of the entrepreneur, which could lead to recall bias. While I would argue the decision to start a business is a highly salient event for an entrepreneur, and that family support received (or lack thereof) is likely an accessible memory, there is room for error.

Future Research

This dissertation highlights several areas for future research. First and foremost, I believe this research justifies additional theorizing on the nature and role of endorsement—potentially even a theory of family endorsement in entrepreneurship and in the broader management literature. For many entrepreneurs, endorsement may not matter, but for others, it could be the difference between starting and sustaining a successful venture. This dissertation has introduced the concept of endorsement into the conversation at the intersection of family and entrepreneurship. However, these are only preliminary thoughts regarding the nature and dynamics of endorsement. Many important questions remain regarding endorsement. For instance, what does the process of seeking and gaining endorsement look like for entrepreneurs and family members? To that end, it would be useful to sample entrepreneurs and family members involved in beginning a new venture. Similarly, how do different levels or types of endorsement impact family stability? For example, an imbalanced level of endorsement within a family could potentially cause conflict or fault lines. Next, it is important to understand which entrepreneurs should seek endorsement, from which family members and under what family and venture conditions. It may be that endorsement matters more for certain demographics or types of entrepreneurs than others. It could be that the entrepreneur's values or those of their family members impact endorsement dynamics (Carlson & Kacmar, 2000). Next, it would be useful to explore the effect that endorsement has on long-term instrumental support from family members, and even its decline in importance as the venture ages. It would also be useful to explore how endorsement from a key family member influences endorsement from other family members who may provide resources to the venture. For example, an endorsement from influential family members may result in greater resources to the venture than an endorsement from less influential

family members. Culture may also bound this relationship, particularly for patriarchal societies. That is, the disparate norms and values that shape different cultures may influence the general importance of endorsement in the family system (Harrison & Huntington, 2000). Finally, it is important to understand the role of family endorsement consensus versus the endorsement of one or two key family members. It may be that endorsement consensus is more important for entrepreneurs who value harmony and cooperation within a family, or for entrepreneurs from collectivistic cultures. In sum, there are many interesting questions that surround the concept of endorsement and much theorizing left to be done.

The second opportunity for future research is to examine the influence of family relationships through the lens of specific relational dyads (e.g., entrepreneur-spouse, entrepreneur-parent, etc.), because family members are unique and exert a unique influence inside and outside the family system. We understand through our own relationships with specific family members that they have their own character and unique features. Yet, in entrepreneurship research, we often treat "family" as one broad construct. Family systems theory accounts for these one-on-one relationships as subsystems embedded within the larger family system (Eddleston & Powell, 2012; Powell & Eddleston, 2013). That is, each relational subsystem follows the same principles as the larger family system but likely differs in key areas such as goal orientation, boundary permeability, rules of transformation, and requisite variety. These factors influence how environmental inputs are processed and fed back into the relational system. This means that each relational dyad is likely to produce a different system output in the presence of the same environmental input. The causes of this variation stem from a variety of factors including individual differences such as personality, but also the unique roles that individuals play in these different subsystems. For example, the goals, boundaries and relational

rules that characterize the entrepreneur's marriage may be dramatically different from those that characterize their relationship with a parent or uncle. Additionally, different family members have unique motivations, skills and capacities for support. Thus, the investigation of family sub-systems is a rich area for investigation.

A third fruitful avenue for future research is the continued investigation of business influences on the family. This dissertation has touched on these recursive influences, but they remain understudied in the field of family and entrepreneurship. From a systems perspective, some important topics in this area include the manner in which families adapt and adjust to a new equilibrium if required to do so by the business. How are individual and system goals re-negotiated to accommodate the demands of venture creation and sustainability? Perhaps most importantly, what are the thresholds for the family system or venture system in terms of adaptation and reaching a breaking point, suffering irreparable damage? Answers to these questions may maximize the chance of well-being and success in both family and venture environments while preventing significant loss in one or both.

It is my hope that this research will begin an interesting conversation on the role of family endorsement in new venture creation and sustainability, and that others will join me in exploring the many questions that remain.

Conclusion

My goal in this dissertation was to introduce and explore the role of family endorsement in entrepreneurship, while also examining the recursive influence of business and family. While much of the research in family entrepreneurship has focused on how family resources influence venture success, there has been little attention given to family processes, especially those that occur prior to venture creation. This dissertation extends current research at the intersection of

family and entrepreneurship by examining family endorsement as a pre-venture process that effects the venture creation decisions and business closure intentions of entrepreneurs. The results of this study confirm that family endorsement is an important consideration for the entrepreneur in venture creation and sustainability efforts, and that business-to-family factors such as standard of living changes influence the entrepreneur in important ways. It is my hope that the theorizing and findings in this study encourage further research on how other family processes, including endorsement, influence the mutual sustainability and success of business ventures and family systems.

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APPENDIX

TABLES

Table 4.1. Experiment 1 Instructions and General Scenario (Study 2)

Initial Instructions and Scenario	
Instructions	Please read the following paragraphs carefully and imagine yourself in the scenario described below:
General Scenario	You are considering starting your own business based on an opportunity that you have identified in the market. You currently have access to the financial, human, and technical resources required to start the business.

Table 4.2. Experiment 1 Manipulations (Study 2)

Manipulation	Description
High Uncertainty	As you evaluate the competitive environment, you make the following assessments about demand and competition. First, although customer demand seems strong right now, it is likely that demand will fluctuate significantly in the near term. Similarly, you have few insights into potential competitor responses, meaning there is a high degree of uncertainty concerning this business opportunity.
Low Uncertainty	As you evaluate the competitive environment, you make the following assessments about demand and competition. First, customer demand seems strong right now, and demand is unlikely to fluctuate significantly in the near term. Similarly, you have many insights into potential competitor responses. Therefore, you have a high degree of certainty regarding customer demand and competition associated with this business opportunity.
High Family Endorsement	You have discussed the details of your decision to start the business with your Spouse*, Mom*, and Dad*, the family members you previously highlighted as "most important to you," and these family members all expressed strong approval of your plan to start the business.
Low Family Endorsement	You have discussed the details of your decision to start the business with your Spouse*, Mom*, and Dad*, the family members you previously highlighted as "most important to you," and these family members all expressed strong disapproval of your plan to start the business.

*Specific family members are built into the scenario and customized to each respondent. The family members listed are based on selections made by the respondent to the following question earlier in the survey, "Whose opinion is 'most important to you' regarding your decision to start your business?" The question is repeated two more times with "2nd most important to you" and "3rd most important to you". Family members are displayed in the order of importance.

Table 4.3. Experiment 2 Instructions and General Scenario (Study 3)

Initial Instructions and Scenario	
Instructions	Please read the following paragraphs carefully and imagine yourself in the scenario described below:
General Scenario	You started your own business about 12 months ago.

Table 4.4. Experiment 2 Manipulations (Study 3)

Manipulation	Description
High Emotional Support	Your close family members are proud of your efforts in the business. They are really interested in what you are doing and take the time to listen when you talk about the business. In addition, they express concern when you have business related problems and offer encouragement and support.
Low Emotional Support	Your close family members criticize your efforts in the business. They express little interest in what you are doing and prefer not to hear you talk about the business. In addition, they express minimal concern when you have business related problems and offer very little encouragement or support.
Positive Standard of Living Change	Since starting the business, your monthly household income has increased. The business has provided more discretionary household income and your family is able to spend more money.
Negative Standard of Living Change	Since starting the business, your monthly household income has decreased. The business has reduced discretionary household income and your family has had to significantly reduce spending.
Above Average Work Hours	On average, the business requires you to work 60-70 hours a week.
Below Average Work Hours	On average, the business requires you to work 30-40 hours a week.

Table 5.1. Descriptive Statistics and Correlations (Study 1)

	Descriptives				Pearson Correlations			
	Min	**Max**	**Mean**	**SD**	**1**	**2**	**3**	**4**
1. Endorsement (Family)	-25.20	22.80	8.35	9.32	1			
2. Emotional Support (Family)	-25.20	22.80	9.44	8.95	0.74**	1		
3. Average Work Hours	3	92	45.12	15.34	-0.07	0.07	1	
4. Standard of Living Change (7=much better)	1	7	5.01	1.45	0.29**	0.29**	0.11	1
5. Closure Intentions (5=high intent to close)	1	5	2.04	1.09	-0.01	0.14	-0.18	-0.03
6. Work Tension (5=high work tension)	1	5	3.02	0.86	-0.06	0.04	0.29**	-0.06
7. Venture Age (years)	1	43	16.11	11.10	0.14	0.01	0.10	0.33**
8. Venture Size (# of employees)	1	189	11.36	25.79	0.17	0.12	-0.02	0.24*
9. Performance (relative growth in profitability)	2	7	4.69	1.22	0.22*	0.31**	0.33**	0.48**
10. Serial Entrepreneur (1=no)	0	1	0.53	0.50	-0.06	-0.04	-0.14	-0.37**
11. Entrepreneur's Sex (1=female)	0	1	0.49	0.50	0.03	0.04	-0.31**	-0.21*
12. Entrepreneur's Age (years)	19	75	52.57	11.26	-0.07	-0.26**	-0.15	-0.03
13. Married (1=yes)	0	1	0.68	0.47	0.34**	0.39**	-0.05	0.27**

N=118 (listwise deletion)

** p<=.01; * p<=.05

α in parentheses on the diagonal where applicable

Table 5.1. (Continued)

		Pearson Correlations								
		5	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
5.	Closure Intentions (5=high intent to close)	(.84)								
6.	Work Tension (5=high work tension)	0.48**	(.85)							
7.	Venture Age (years)	0.03	0.04	1						
8.	Venture Size (# of employees)	0.01	0.06	0.03	1					
9.	Performance (relative growth in profitability)	-0.21*	0.07	0.01	0.26**	1				
10.	Serial Entrepreneur (1=no)	-0.13	-0.19*	-0.41**	-0.20*	-0.29**	1			
11.	Entrepreneur's Sex (1=female)	0.17	0.09	-0.13	0.01	-0.19	0.24**	1		
12.	Entrepreneur's Age (years)	-0.09	-0.19*	0.51**	-0.14	-0.19*	-0.15	-0.17	1	
13.	Married (1=yes)	0.07	-0.05	0.10	0.06	0.11	0.05	0.10	0.01	1

N=118 (listwise deletion)

** p<=.01; * p<=.05

α in parantheses on the diagonal where applicable

Table 5.2. Model 1 Regression Table (Study 1)

		Emotional Support (M)							Closure Intentions (Y)					
Predictor		Coeff	Std. Coeff	Bootstrap SE*	T	p	95% CI Bias Corrected		Coeff	Std. Coeff	Bootstrap SE*	T	p	95% CI Bias Corrected
Constant		12.620		4.516	2.795	0.006	3.67, 21.57		3.567		1.010	3.531	0.001	1.564, 5.569
Endorsement (X)	**a** $_1$	0.651	0.678	0.076	8.557	0.000	0.500, 0.802	**c'**	-0.032	-0.274	0.180	-1.759	0.081	-0.068, 0.004
Emotional Support (M)								**b** $_1$	0.047	0.386	0.210	2.296	0.024	0.006, 0.088
Average Work Hours (W)	**a** $_2$	0.044	0.075	0.042	1.028	0.306	-0.041, 0.128							
Standard of Living Change (Z)	**a** $_3$	-0.031	-0.005	0.497	-0.062	0.951	-1.016, 0.955							
Venture Age		-0.020	-0.025	0.061	-0.320	0.750	-0.141, 0.102		0.001	0.010	0.010	0.109	0.914	-0.018, 0.020
Venture Size		-0.022	-0.063	0.023	-0.965	0.337	-0.068, 0.024		0.002	0.047	0.008	0.199	0.843	-0.014, 0.017
Performance		0.745	0.101	0.664	1.122	0.264	-0.572, 2.063		-0.316	-0.353	0.096	-3.289	0.001	-0.507, -0.126
Serial Entrepreneur		-0.407	-0.023	1.362	-0.299	0.766	-3.107, 2.294		-0.586	-0.270	0.218	-2.690	0.008	-1.017, -0.154
Sex		0.292	0.016	1.205	0.242	0.809	-2.098, 2.681		0.304	0.140	0.222	1.370	0.174	-0.136, 0.743
Entrepreneur's Age		-0.148	-0.186	0.062	-2.380	0.019	-0.272, -0.025		-0.008	-0.083	0.013	-0.646	0.520	-0.034, 0.017
Married		2.802	0.147	1.216	2.304	0.023	0.390, 5.214		0.116	0.050	0.233	0.498	0.619	-0.346, 0.578
Average Work Hours x Endorsement (XW)	**a** $_4$	0.001		0.004	0.322	0.748	-0.007, 0.010							
Standard of Living Change x Endorsement (XZ)	**a** $_5$	-0.032		0.045	-0.715	0.476	-0.122, 0.058							
		R^2 = 0.641							R^2 = 0.202					
		F (12, 105) = 16.781							F (9, 108) = 4.387					
N =118		p < 0.001							p < 0.001					

*Heteroskedasticy consistent SE's
Note: Interactions mean centered prior to analysis
Note: 10,000 bootstrap samples

Table 5.3. Model 1 Direct Effects (Study 1)

Direct Effect of Endorsement (X) on Closure Intentions (Y)				
Effect	**SE**	**t**	**p**	**LLCI, ULCI**
-0.32	0.018	-1.759	0.081	-0.068, 0.004

Table 5.4. Model 1 Conditional Indirect Effects (Study 1)

Conditional Indirect Effects of Endorsement (X) on Closure Intentions (Y) at Values of Emotional Support (M)

Mediator	**Average Work Hours**	**Standard of Living**	**Effect**	**Bootstrap SE**	**95% CI Bias Corrected**
E. Support	-15.338	-1.453	0.032	0.013	0.009, 0.060
E. Support	-15.338	0.000	0.030	0.012	0.008, 0.056
E. Support	-15.338	1.453	0.027	0.012	0.008, 0.055
E. Support	0.000	-1.453	0.033	0.013	0.009, 0.060
E. Support	0.000	0.000	0.031	0.012	0.008, 0.055
E. Support	0.000	1.453	0.029	0.012	0.007, 0.054
E. Support	15.338	-1.453	0.034	0.014	0.009, 0.064
E. Support	15.338	0.000	0.032	0.013	0.008, 0.059
E. Support	15.338	1.453	0.030	0.012	0.007, 0.057

Table 5.5. Model 1 Index of Partial Moderated Mediation (Study 1)

Moderator	**Mediator**	**Index**	**Bootstrap SE**	**95% CI Bias Corrected**
Average Work Hours	E. Support	0.000	0.000	0.000, 0.001
Standard of Living Change	E. Support	-0.002	0.002	-0.007, 0.002

Table 5.6. Model 2 Regression Table (Study 1)

		Emotional Support (M)							Work Tension (Y)					
Predictor		Coeff	Std. Coeff	Bootstrap SE	T	p	95% CI Bias Corrected		Coeff	Std. Coeff	Bootstrap SE	T	p	95% CI Bias Corrected
Constant		12.620		4.338	2.909	0.004	4.017, 21.222		3.868		0.651	5.942	0.000	2.577, 5.158
Endorsement (X)	a_1	0.651	0.678	0.064	10.202	0.000	0.524, 0.777	c'	-0.018	-0.196	0.013	-1.363	0.176	-0.043, 0.008
Emotional Support (M)								b_1	0.012	0.126	0.014	0.869	0.387	-0.016, 0.041
Average Work Hours (W)	a_2	0.044	0.075	0.041	1.072	0.286	-0.037, 0.124							
Standard of Living Change (Z)	a_3	-0.031	-0.005	0.485	-0.063	0.950	-0.992, 0.930							
Venture Age		-0.020	-0.025	0.067	-0.293	0.770	-0.152, 0.113		0.009	0.117	0.009	1.026	0.307	-0.009, 0.027
Venture Size		-0.022	-0.063	0.022	-1.023	0.309	-0.066, 0.021		0.000	0.000	0.003	-0.023	0.982	-0.006, 0.006
Performance		0.745	0.101	0.555	1.344	0.182	-0.354, 1.845		-0.003	-0.004	0.073	-0.046	0.964	-0.149, 0.142
Serial Entrepreneur		-0.407	-0.023	1.298	-0.313	0.755	-2.981, 2.168		-0.351	-0.206	0.184	-1.912	0.059	-0.716, 0.013
Sex		0.292	0.016	1.177	0.248	0.805	-2.043, 2.626		0.201	0.118	0.164	1.222	0.224	-0.125, 0.527
Entrepreneur's Age		-0.148	-0.186	0.061	-2.425	0.017	-0.269, -0.027		-0.018	-0.237	0.009	-2.060	0.042	-0.035, -0.001
Married		2.802	0.147	1.253	2.237	0.027	0.318, 5.286		-0.084	-0.046	0.183	-0.461	0.646	-0.447, 0.278
Average Work Hours x Endorsement (XW)	a_4	0.001		0.004	0.327	0.744	-0.007, 0.010							
Standard of Living Change x Endorsement (XZ)	a_5	-0.032		0.046	-0.712	0.478	-0.123, 0.058							
		R^2 = 0.641							R^2 = 0.117					
		F (12, 105) = 15.623							F (9, 108) = 1.585					
N =118		p < 0.001							p = 0.129					

Note: Interactions mean centered prior to analysis
Note: 10,000 bootstrap samples

Table 5.7. Model 2 Direct Effects (Study 1)

Direct Effect of Endorsement (X) on Work Tension (Y)				
Effect	**SE**	**t**	**p**	**LLCI, ULCI**
-0.18	0.013	-1.363	0.176	-0.043, 0.008

Table 5.8. Model 2 Conditional Indirect Effects (Study 1)

Conditional Indirect Effects of Endorsement (X) on Work Tension (Y) at Values of Emotional Support (M)					
Mediator	**Average Work Hours**	**Standard of Living**	**Effect**	**Bootstrap SE**	**95% CI Bias Corrected**
E. Support	-15.338	-1.453	0.008	0.009	-0.009, 0.028
E. Support	-15.338	0.000	0.008	0.009	-0.008, 0.026
E. Support	-15.338	1.453	0.007	0.008	-0.008, 0.025
E. Support	0.000	-1.453	0.009	0.009	-0.010, 0.028
E. Support	0.000	0.000	0.008	0.009	-0.009, 0.026
E. Support	0.000	1.453	0.008	0.008	-0.008, 0.025
E. Support	15.338	-1.453	0.009	0.010	-0.010, 0.029
E. Support	15.338	0.000	0.008	0.009	-0.010, 0.027
E. Support	15.338	1.453	0.008	0.009	-0.009, 0.026

Table 5.9. Model 2 Index of Partial Moderated Mediation (Study 1)

Moderator	**Mediator**	**Index**	**Bootstrap SE**	**95% CI Bias Corrected**
Average Work Hours	E. Support	0.000	0.000	0.000, 0.000
Standard of Living Change	E. Support	0.000	0.001	-0.004, 0.001

Table 5.10. Model 3 (Post-hoc) Regression Table (Study 1)

		Emotional Support (M)							Closure Intentions (Y)					
Predictor		Coeff	Std. Coeff	Bootstrap SE*	T	p	95% CI Bias Corrected		Coeff	Std. Coeff	Bootstrap SE*	T	p	95% CI Bias Corrected
Constant		-4.416		4.631	-0.954	0.342	-13.597, 4.764		4.406		0.894	4.926	0.000	2.632, 6.179
Endorsement (X)	a_1	0.645	0.671	0.075	8.663	0.000	0.498, 0.793	c'	-0.027	-0.233	0.013	-2.099	0.038	-0.053, -0.002
Emotional Support (M)								b_1	0.041	0.333	0.016	-2.100	0.012	.0091, .0719
Work Tension (V)								b_2	0.601	0.471	0.112	5.351	0.000	0.378, 0.824
Support x Work Tension (MW)								b_3	0.033		0.014	2.433	0.017	0.006, 0.061
Average Work Hours		0.039	0.067	0.041	0.949	0.345	-0.042, 0.119		-0.019	-0.267	0.006	-3.035	0.003	-0.031, -0.007
Standard of Living Change		0.016	0.003	0.486	0.033	0.974	-0.947, 0.979		0.061	0.081	0.082	0.747	0.456	-0.101, 0.224
Venture Age		-0.014	-0.017	0.059	-0.233	0.816	-0.130, 0.103		0.003	0.031	0.009	0.354	0.724	-0.014, 0.020
Venture Size		-0.021	-0.061	0.024	-0.913	0.364	-0.068, 0.025		0.001	0.024	0.006	0.161	0.873	-0.010, 0.012
Performance		0.753	0.102	0.648	1.162	0.248	-0.532, 2.038		-0.286	-0.319	0.080	-3.587	0.001	-0.444, -0.128
Serial Entrepreneur		-0.311	-0.017	1.264	-0.246	0.806	-2.816, 2.195		-0.261	-0.120	0.203	-1.283	0.202	-0.663, 0.142
Sex		0.283	0.016	1.194	0.237	0.813	-2.083, 2.650		0.004	0.002	0.189	0.022	0.982	-0.371, 0.379
Entrepreneur's Age		-0.149	-0.187	0.062	-2.406	0.018	-0.272, -0.026		-0.006	-0.062	0.011	-0.537	0.592	-0.027, 0.016
Married		2.934	0.154	1.210	2.426	0.017	0.536, 5.332		0.186	0.080	0.191	0.974	0.332	-0.193, 0.565
		R^2 = 0.639							R^2 = 0.482					
		F (10, 107) = 18.642							F (10, 107) = 10.575					
N =118		p < 0.001							p < 0.001					

*Heteroskedasticy consistent SE's
Note: Interactions mean centered prior to analysis
Note: 10,000 bootstrap samples

Table 5.11. Model 3 (Post-hoc) Direct Effects (Study 1)

Direct Effect of Endorsement (X) on Closure Intentions (Y)				
Effect	**SE**	**t**	**p**	**LLCI, ULCI**
-0.27	0.013	-2.099	0.038	-0.053, -0.002

Table 5.12. Model 3 (Post-hoc) Conditional Indirect Effects (Study 1)

Conditional Indirect Effects of Endorsement (X) on Closure Intentions (Y) at Values of Emotional Support (M)				
Mediator	**Work Tension**	**Effect**	**Bootstrap SE**	**95% CI Bias Corrected**
E. Support	-0.855	0.008	0.011	-0.017, 0.029
E. Support	0.000	0.026	0.010	0.007, 0.046
E. Support	0.855	0.045	0.013	0.019, 0.070

Table 5.13. Model 3 (Post-hoc) Index of Moderated Mediation (Study 1)

Mediator	**Index**	**Bootstrap SE**	**95% CI Bias Corrected**
E. Support	0.022	0.009	0.004, 0.038

Table 5.14. Descriptive Statistics (Study 2)

	Overall				Experimental Condition Mean			
Variable	**Min**	**Max**	**Mean**	**Std. Dev.**	**L*L#**	**LH**	**HL**	**H*H#**
1. Risk Propensity	1.86	5	3.31	0.68	3.41	3.25	3.28	3.30
2. Married (1=Married)	0	1	0.75	0.43	0.76	0.79	0.74	0.72
3. Family Satisfaction	1	5	3.85	0.89	3.80	3.86	3.91	3.84
4. Necessity Entrepreneur (1=yes)	0	1	0.25	0.43	0.39	0.21	0.26	0.13
5. Positive Affect (Time 1)	1.80	5	3.84	0.78	3.91	3.69	3.84	3.92
6. Negative Affect (Time 1)	1	4	1.51	0.60	1.53	1.54	1.46	1.51
7. Entry Timing	1	6	3.16	1.74	3.92	2.90	3.38	2.49
8. Entry Method	1	7	4.15	1.97	4.04	4.31	4.01	4.23
Valid N (listwise)			150		38	39	34	39

* L & H = Low & High Uncertainty
# L & H = Low & High Family Endorsement

Table 5.15. Pearson Correlations (Study 2)

		Pearson Correlations							
	Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1.	Risk Propensity	(.78)							
2.	Married	0.046	1						
3.	Family Satisfaction	0.173*	0.006	(.93)					
4.	Necessity Entrepreneur	-0.036	-.175*	-.181*	1				
5.	Positive Affect	-.169*	-0.006	0.271**	-0.094	(.81)			
6.	Negative Affect	-0.040	-0.107	-.274**	0.159	-0.135	(.69)		
7.	Entry Timing	0.078	0.115	0.010	-0.071	0.077	-0.053	1	
8.	Entry Method Full-Time	0.032	0.013	0.151	-0.005	.211**	-0.060	-0.086	(.83)

N=150 (listwise deletion)
* p<=.01, **p<=.05
cronbach alpha in parantheses on the diagonal where applicable

Table 5.16. Descriptive Statistics for Entry Timing (Study 2)

Dependent Variable: Entry Timing

Uncertainty	Family Endorsement	Mean	Std. Deviation	N
Low	Low	3.92	1.715	38
	High	2.90	1.651	39
	Total	3.40	1.749	77
High	Low	3.38	1.724	34
	High	2.49	1.604	39
	Total	2.90	1.709	73
Total	Low	3.67	1.728	72
	High	2.69	1.630	78
	Total	3.16	1.742	150

Table 5.17. Test of Between-Subjects Effects (Controls Only) (Study 2)

Dependent Variable: Entry Timing

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	13.995[a]	6	2.333	0.761	0.602	0.031
Intercept	5.369	1	5.369	1.752	0.188	0.012
Risk Propensity	3.833	1	3.833	1.251	0.265	0.009
Married	4.372	1	4.372	1.427	0.234	0.010
Family Satisfaction	0.930	1	0.930	0.304	0.582	0.002
Necessity Entrepreneur	0.821	1	0.821	0.268	0.606	0.002
Positive Affect	3.843	1	3.843	1.254	0.265	0.009
Negative Affect	0.422	1	0.422	0.138	0.711	0.001
Error	438.165	143	3.064			
Total	1950.000	150				
Corrected Total	452.160	149				

a. R Squared = .031 (Adjusted R Squared = -.010)

Table 5.18. Tests of Between-Subjects Effects (Main Effects) (Study 2)

Dependent Variable: Entry Timing

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	60.760[a]	9	6.751	2.415	0.014	0.134
Intercept	8.645	1	8.645	3.092	0.081	0.022
Risk Propensity	1.970	1	1.970	0.705	0.403	0.005
Married	2.843	1	2.843	1.017	0.315	0.007
Family Satisfaction	0.915	1	0.915	0.327	0.568	0.002
Necessity Entrepreneur	6.346	1	6.346	2.270	0.134	0.016
Positive Affect	2.523	1	2.523	0.903	0.344	0.006
Negative Affeect	0.231	1	0.231	0.083	0.774	0.001
Uncertainty	9.718	1	9.718	3.476	0.064	0.024
Family Endorsement	36.873	1	36.873	13.189	0.000	0.086
Uncertainty * Family Endorsement	0.050	1	0.050	0.018	0.894	0.000
Error	391.400	140	2.796			
Total	1950.000	150				
Corrected Total	452.160	149				

a. R Squared = .134 (Adjusted R Squared = .079)

Table 5.19. Pairwise Comparison Uncertainty (Study 2)

Dependent Variable: Entry Timing

(I) Uncertainty		Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference [b]	
					Lower Bound	Upper Bound
Low	High	0.516	0.277	0.064	-0.031	1.064
High	Low	-0.516	0.277	0.064	-1.064	0.031

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Table 5.20. Pairwise Comparison Family Endorsement (Study 2)

Dependent Variable: Entry Timing

(I) Family Endorsement		Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference [b]	
					Lower Bound	Upper Bound
Low	High	1.018*	0.280	0.000	0.464	1.572
High	Low	-1.018*	0.280	0.000	-1.572	-0.464

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 5.21. Experiment 1 Descriptive Statistics for Entry Method (Study 2)

Dependent Variable: Entry Method Full-Time

Uncertainty	Family Endorsement	Mean	Std. Deviation	N
Low	Low	3.961	1.753	38
	High	3.692	1.883	39
	Total	3.825	1.813	77
High	Low	3.985	1.944	34
	High	3.769	2.302	39
	Total	3.870	2.131	73
Total	Low	3.972	1.833	72
	High	3.731	2.090	78
	Total	3.847	1.968	150

Table 5.22. Experiment 1 Test of Between-Subjects Effects - Controls (Study 2)

Dependent Variable: Entry Method Full-Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	33.247[a]	6	5.541	1.457	0.197	0.058
Intercept	86.744	1	86.744	22.814	0.000	0.138
Risk Propensity	1.293	1	1.293	0.340	0.561	0.002
Married	0.157	1	0.157	0.041	0.839	0.000
Family Satisfaction	4.045	1	4.045	1.064	0.304	0.007
Necessity Entrepreneur	0.700	1	0.700	0.184	0.669	0.001
Positive Affect	19.388	1	19.388	5.099	0.025	0.034
Negative Affect	0.055	1	0.055	0.014	0.905	0.000
Error	543.727	143	3.802			
Total	2796.500	150				
Corrected Total	576.973	149				

a. R Squared = .058 (Adjusted R Squared = .018)

Table 5.23. Experiment 1 Test of Between-Subjects Effects - Main Effects (Study 2)

Dependent Variable: Entry Method Full-Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	37.873[a]	9	4.208	1.093	0.372	0.066
Intercept	89.536	1	89.536	23.252	0.000	0.142
Risk Propensity	1.781	1	1.781	0.463	0.498	0.003
Married	0.147	1	0.147	0.038	0.846	0.000
Family Satisfaction	3.756	1	3.756	0.975	0.325	0.007
Necessity Entrepreneur	1.393	1	1.393	0.362	0.549	0.003
Positive Affect	21.158	1	21.158	5.494	0.020	0.038
Negative Affect	0.103	1	0.103	0.027	0.871	0.000
Uncertainty	0.175	1	0.175	0.046	0.831	0.000
Family Endorsement	3.933	1	3.933	1.021	0.314	0.007
Uncertainty * Family Endorsement	0.472	1	0.472	0.123	0.727	0.001
Error	539.101	140	3.851			
Total	2796.500	150				
Corrected Total	576.973	149				

a. R Squared = .066 (Adjusted R Squared = .006)

Table 5.24. Pairwise Comparison Uncertainty (Study 2)

Dependent Variable: Entry Method Full-Time

(I) Uncertainty		Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference [a] Lower Bound	Upper Bound
Low	High	-0.069	0.325	0.831	-0.712	0.573
High	Low	0.069	0.325	0.831	-0.573	0.712

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Table 5.25. Pairwise Comparison Family Endorsement (Study 2)

Dependent Variable: Entry Method Full-Time

(I) Family Endorsement		Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference [a] Lower Bound	Upper Bound
Low	High	0.332	0.329	0.314	-0.318	0.983
High	Low	-0.332	0.329	0.314	-0.983	0.318

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Table 5.30. Descriptive Statistics (Study 3)

	Overall				Experimental Condition Mean							
Variable	**Min**	**Max**	**Mean**	**Std. Dev.**	**LNB***	**LNA**	**LPB**	**LPA**	**HNB**	**HNA**	**HPB**	**HPA**
Gender (1=Male)	0	1	0.49	0.50	0.52	0.52	0.63	0.57	0.55	0.44	0.22	0.48
Married (1=Married)	0	1	0.69	0.46	0.67	0.59	0.67	0.48	0.77	0.75	0.67	0.86
Negative Affect (Time 1)	1	4.20	1.25	0.48	1.16	1.17	1.47	1.10	1.19	1.41	1.22	1.24
Positive Affect (Time 1)	1	5	3.71	0.80	3.74	3.71	3.67	3.68	3.65	3.73	3.73	3.74
Current Work Hours (per week)	2	125	50.36	19.63	58.19	47.76	53.44	52.48	48.45	51.97	42.81	48.55
Business Age (months)	12	71	37.28	15.85	38.63	36.93	34.26	41.10	38.48	37.25	37.00	35.45
First Business (1=yes)	0	1	0.78	0.41	0.81	0.76	0.81	0.86	0.71	0.75	0.81	0.76
Necessity Entrepreneur (1=yes)	0	1	0.23	0.42	0.30	0.34	0.22	0.43	0.16	0.16	0.15	0.17
Risk Propensity	1.29	5	3.35	0.68	3.34	3.27	3.24	3.33	3.41	3.23	3.48	3.47
Family Satisfaction	1.20	5	3.95	0.88	3.93	3.84	3.75	4.30	3.85	3.98	4.03	4.02
Household Income	1	24	9.28	5.33	8.93	9.24	9.04	8.62	8.35	12.13	7.63	9.72
Closure Intentions	1	7	2.90	1.88	3.52	3.69	2.30	2.95	3.10	4.09	1.07	2.24
Affective State (NA)	1	5	1.87	0.91	2.07	2.19	1.64	1.42	2.33	2.44	1.21	1.39
Valid N (listwise)			223		27	29	27	21	31	32	27	29

*Notes: L & H = Low & High Emotional Support; N & P = Negative & Positive Standard of Living Change; A & B = Above & Below Average Work Hours

Table 5.31. Pearson Correlations (Study 3)

		Pearson Correlations							
	Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1.	Gender	1							
2.	Married	0.034	1						
3.	Negative Affect (Time 1)	0.021	0.071	(.72)					
4.	Positive Affect (Time 1)	0.128	-0.049	-0.008	(.81)				
5.	Current Work Hours	0.113	-0.048	0.093	.172*	1			
6.	Business Age (months)	0.122	0.080	-0.034	-0.112	0.039	1		
7.	First Business	-0.001	-0.004	0.056	-0.019	0.080	-0.097	1	
8.	Necessity Entrepreneur	.140*	-.159*	.164*	-0.026	0.012	-0.039	0.011	1
9.	Risk Propensity	-.235**	0.027	0.001	-0.052	-0.021	0.032	-0.012	0.036
10.	Family Satisfaction	0.020	-0.015	-.157*	.143*	-.151*	0.102	0.056	0.002
11.	Household Income	.253**	.500**	0.101	0.086	0.060	.284**	0.026	-0.047
12.	Emotional Support	-0.129	.172*	0.042	0.006	-0.121	-0.014	-0.062	-.186**
13.	Standard of Living Change	-0.033	-0.016	0.034	0.001	-0.059	-0.035	0.062	-0.005
14.	Work Hours	0.013	-0.013	-0.011	0.013	-0.015	0.009	-0.013	0.066
15.	Closure Intentions	0.023	.135*	.183**	-0.112	-0.006	0.079	-0.028	0.097
16.	Affective State (NA)	-0.091	0.002	.314**	-0.046	0.001	-0.023	0.041	0.074

N=223 (listwise deletion)
* p<=.01; **p<=.05
Cronbach alpha in parentheses on the diagonal where applicable

Table 5.31. Pearson Correlations (Study 3) cont.

		Pearson Correlations							
	Variables	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
9.	Risk Propensity	(.72)							
10.	Family Satisfaction	0.052	(.86)						
11.	Household Income	-.140*	.176**	1					
12.	Emotional Support	0.075	0.018	0.052	1				
13.	Standard of Living Change	0.051	0.062	-0.088	0.009	1			
14.	Work Hours	-0.035	0.071	.150*	0.032	-0.032	1		
15.	Closure Intentions	0.076	0.003	.175**	-0.116	-.400**	.205**	1	
16.	Affective State (NA)	-0.040	-.164*	0.038	0.009	-.468**	0.044	.439**	(.85)

N=223 (listwise deletion)
* p<=.01; **p<=.05
Cronbach alpha in parentheses on the diagonal where applicable

Table 5.32. Descriptive Statistics for Closure Intentions (Study 3)

Dependent Variable: Closure Intentions					
Emotional Support	**Standard of Living Change**	**Work Hours**	**Mean**	**Std. Dev.**	**N**
Low	Negative	Below Average	3.52	1.827	27
		Above Average	3.69	1.755	29
		Total	3.61	1.775	56
	Positive	Below Average	2.30	1.750	27
		Above Average	2.95	2.061	21
		Total	2.58	1.900	48
	Total	Below Average	2.91	1.876	54
		Above Average	3.38	1.905	50
		Total	3.13	1.896	104
High	Negative	Below Average	3.10	1.513	31
		Above Average	4.09	1.940	32
		Total	3.60	1.801	63
	Positive	Below Average	1.07	0.267	27
		Above Average	2.24	1.640	29
		Total	1.68	1.323	56
	Total	Below Average	2.16	1.508	58
		Above Average	3.21	2.018	61
		Total	2.70	1.857	119
Total	Negative	Below Average	3.29	1.665	58
		Above Average	3.90	1.850	61
		Total	3.61	1.781	119
	Positive	Below Average	1.69	1.385	54
		Above Average	2.54	1.843	50
		Total	2.10	1.669	104
	Total	Below Average	2.52	1.729	112
		Above Average	3.29	1.960	111
		Total	2.90	1.884	223

Table 5.33. Experiment 2 Test of Between-Subjects Effects - Controls (Study 3)

Dependent Variable: Closure Intentions

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	72.192[a]	11	6.563	1.935	0.037
Intercept	6.254	1	6.254	1.844	0.176
Gender	0.000	1	0.000	0.000	0.999
Marital Status	1.451	1	1.451	0.428	0.514
Negative Affect (Time 1)	17.252	1	17.252	5.087	0.025
Positive Affect (Time 1)	9.170	1	9.170	2.704	0.102
Current Work Hours	0.002	1	0.002	0.001	0.979
Business Age (months)	0.267	1	0.267	0.079	0.779
First Business	1.273	1	1.273	0.375	0.541
Necessity Entrepreneur	4.806	1	4.806	1.417	0.235
Risk Propensity	5.168	1	5.168	1.524	0.218
Family Satisfaction	0.120	1	0.120	0.035	0.851
Household Income	10.657	1	10.657	3.142	0.078
Error	715.638	211	3.392		
Total	2665.000	223			
Corrected Total	787.830	222			

a. R Squared = .092 (Adjusted R Squared = .044)

Table 5.34. Experiment 2 Test of Between-Subjects Effects - Main Effects (Study 3)

Dependent Variable: Closure Intentions					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	256.460[a]	18	14.248	5.470	0.000
Intercept	3.582	1	3.582	1.375	0.242
Gender	0.171	1	0.171	0.066	0.798
Marital Status	6.468	1	6.468	2.483	0.117
Negative Affect (Time 1)	23.107	1	23.107	8.871	0.003
Positive Affect (Time 1)	5.731	1	5.731	2.200	0.140
Current Work Hours	2.259	1	2.259	0.867	0.353
Business Age (months)	0.476	1	0.476	0.183	0.669
First Business	0.249	1	0.249	0.096	0.757
Necessity Entrepreneur	1.083	1	1.083	0.416	0.520
Risk Propensity	8.808	1	8.808	3.382	0.067
Family Satisfaction	0.631	1	0.631	0.242	0.623
Household Income	1.082	1	1.082	0.415	0.520
Emotional Support	20.445	1	20.445	7.849	0.006
Standard of Living	118.468	1	118.468	45.481	0.000
Work Hours	29.122	1	29.122	11.180	0.001
Emotional Support * Standard of Living	10.326	1	10.326	3.964	0.048
Emotional Support * Work Hours	2.545	1	2.545	0.977	0.324
Standard of Living * Work Hours	2.841	1	2.841	1.091	0.298
Emotional Support * Standard of Living * Work Hours	0.894	1	0.894	0.343	0.559
Error	531.370	204	2.605		
Total	2665.000	223			
Corrected Total	787.830	222			

a. R Squared = .326 (Adjusted R Squared = .266)

Table 5.35. Marginal Means Estimates (Study 3)

Dependent Variable: Closure Intentions					
				95% Confidence Interval	
Emotional Support	**Standard of Living Change**	**Mean**	**Std. Error**	**Lower Bound**	**Upper Bound**
Low	Negative	3.723[a]	0.220	3.289	4.156
	Positive	2.677[a]	0.240	2.204	3.150
High	Negative	3.521[a]	0.206	3.114	3.929
	Positive	1.593[a]	0.222	1.155	2.030

a. Covariates appearing in the model are evaluated at the following values: Gender = .49, Married = .69, Negative Affect (T1) = 1.2502, Positive Affect (T1) = 3.7067, Current Work Hours = 50.36, Business Age (In months) = 37.28, First Business = .78, Necessity Entrepreneur = .23, Risk Propensity = 3.3459, Family Satisfaction = 3.9502, Household Income = 9.28.

Table 5.36. Pairwise Comparison Emotional Support (Study 3)

Dependent Variable: Closure Intentions

Emotional Support	(I) Standard of Living Change	(J) Standard of Living Change	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Low	Negative	Positive	1.046*	0.323	0.001	0.410	1.682
	Positive	Negative	-1.046*	0.323	0.001	-1.682	-0.410
High	Negative	Positive	1.929*	0.303	0.000	1.332	2.525
	Positive	Negative	-1.929*	0.303	0.000	-2.525	-1.332

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 5.37. Univariate Tests Emotional Support (Study 3)

Dependent Variable: Closure Intentions

Emotional Support		Sum of Squares	df	Mean Square	F	Sig.
Low	Contrast	27.380	1	27.380	10.512	0.001
	Error	531.370	204	2.605		
High	Contrast	105.841	1	105.841	40.634	0.000
	Error	531.370	204	2.605		

Each F tests the simple effects of Standard of Living Change within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 5.38. Pairwise Comparison Standard of Living Change (Study 3)

Dependent Variable: Closure Intentions

Standard of Living Change	(I) Emotional Support	(J) Emotional Support	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Negative	Low	High	0.201	0.305	0.510	-0.400	0.802
	High	Low	-0.201	0.305	0.510	-0.802	0.400
Positive	Low	High	1.084*	0.333	0.001	0.428	1.740
	High	Low	-1.084*	0.333	0.001	-1.740	-0.428

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 5.39. Univariate Tests Standard of Living Change (Study 3)

Dependent Variable: Closure Intentions

Standard of Living Change		Sum of Squares	df	Mean Square	F	Sig.
Negative	Contrast	1.135	1	1.135	0.436	0.510
	Error	531.370	204	2.605		
Positive	Contrast	27.678	1	27.678	10.626	0.001
	Error	531.370	204	2.605		

Each F tests the simple effects of Emotional Support within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 5.40. Descriptive Statistics for Affective State (NA) (Study 3)

Dependent Variable: Affective State (NA)					
Emotional Support	**Standard of Living Change**	**Work Hours**	**Mean**	**Std. Dev.**	**N**
Low	Negative	Below Average	2.074	0.903	27
		Above Average	2.193	0.939	29
		Total	2.136	0.915	56
	Positive	Below Average	1.637	0.810	27
		Above Average	1.419	0.684	21
		Total	1.542	0.757	48
	Total	Below Average	1.856	0.878	54
		Above Average	1.868	0.918	50
		Total	1.862	0.893	104
High	Negative	Below Average	2.329	1.001	31
		Above Average	2.444	0.921	32
		Total	2.387	0.955	63
	Positive	Below Average	1.207	0.257	27
		Above Average	1.393	0.587	29
		Total	1.304	0.464	56
	Total	Below Average	1.807	0.936	58
		Above Average	1.944	0.937	61
		Total	1.877	0.935	119
Total	Negative	Below Average	2.210	0.957	58
		Above Average	2.325	0.930	61
		Total	2.269	0.941	119
	Positive	Below Average	1.422	0.633	54
		Above Average	1.404	0.623	50
		Total	1.413	0.625	104
	Total	Below Average	1.830	0.905	112
		Above Average	1.910	0.925	111
		Total	1.870	0.914	223

Table 5.41. Experiment 2 Tests of Between-Subjects Effects - Controls (Study 3)

Dependent Variable: Affective State (NA)					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	24.847[a]	11	2.259	2.969	0.001
Intercept	10.977	1	10.977	14.427	0.000
Gender	2.527	1	2.527	3.321	0.070
Marital Status	0.387	1	0.387	0.509	0.476
Negative Affect (Time 1)	13.858	1	13.858	18.213	0.000
Positive Affect (Time 1)	0.022	1	0.022	0.028	0.866
Current Work Hours	0.299	1	0.299	0.394	0.531
Business Age (months)	0.001	1	0.001	0.001	0.974
First Business	0.185	1	0.185	0.243	0.622
Necessity Entrepreneur	0.304	1	0.304	0.399	0.528
Risk Propensity	0.447	1	0.447	0.588	0.444
Family Satisfaction	3.011	1	3.011	3.958	0.048
Household Income	0.880	1	0.880	1.157	0.283
Error	160.542	211	0.761		
Total	965.160	223			
Corrected Total	185.389	222			

a. R Squared = .134 (Adjusted R Squared = .089)

Table 5.42. Experiment 2 Test of Between-Subjects Effects - Main Effects (Study 3)

Dependent Variable: Affective State (NA)					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	69.954[a]	18	3.886	6.868	0.000
Intercept	8.303	1	8.303	14.673	0.000
Gender	3.204	1	3.204	5.663	0.018
Marital Status	0.148	1	0.148	0.261	0.610
Negative Affect (Time 1)	14.637	1	14.637	25.868	0.000
Positive Affect (Time 1)	0.004	1	0.004	0.008	0.930
Current Work Hours	0.917	1	0.917	1.620	0.204
Business Age (months)	0.009	1	0.009	0.017	0.898
First Business	0.823	1	0.823	1.454	0.229
Necessity Entrepreneur	0.226	1	0.226	0.399	0.529
Risk Propensity	0.205	1	0.205	0.363	0.548
Family Satisfaction	1.612	1	1.612	2.850	0.093
Household Income	0.053	1	0.053	0.093	0.760
Emotional Support	0.043	1	0.043	0.076	0.783
Standard of Living	40.338	1	40.338	71.287	0.000
Work Hours	0.265	1	0.265	0.468	0.495
Emotional Support * Standard of Living	2.456	1	2.456	4.340	0.038
Emotional Support * Work Hours	0.088	1	0.088	0.156	0.693
Standard of Living * Work Hours	0.221	1	0.221	0.390	0.533
Emotional Support * Standard of Living * Work Hours	0.495	1	0.495	0.875	0.351
Error	115.435	204	0.566		
Total	965.160	223			
Corrected Total	185.389	222			

a. R Squared = .377 (Adjusted R Squared = .322)

Table 5.43. Marginal Means Estimates (Study 3)

Dependent Variable: Affective State (NA)

Emotional Support	Standard of Living Change	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	Negative	2.182[a]	0.103	1.980	2.384
	Positive	1.529[a]	0.112	1.309	1.750
High	Negative	2.368[a]	0.096	2.178	2.557
	Positive	1.284[a]	0.103	1.080	1.488

a. Covariates appearing in the model are evaluated at the following values: Gender = .49, Married = .69, Negative Affect (T1) = 1.2502, Positive Affect (T1) = 3.7067, Current Work Hours = 50.36, Business Age (In months) = 37.28, First Business = .78, Necessity Entrepreneur = .23, Risk Propensity = 3.3459, Family Satisfaction = 3.9502, Household Income = 9.28.

Table 5.44. Pairwise Comparison Emotional Support (Study 3)

Dependent Variable: Affective State (NA)

Emotional Support	(I) Standard of Living Change	(J) Standard of Living Change	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Low	Negative	Positive	.653*	0.150	0.000	0.356	0.949
	Positive	Negative	-.653*	0.150	0.000	-0.949	-0.356
High	Negative	Positive	1.083*	0.141	0.000	0.805	1.361
	Positive	Negative	-1.083*	0.141	0.000	-1.361	-0.805

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 5.45. Univariate Tests Emotional Support (Study 3)

Dependent Variable: Affective State (NA)						
Emotional Support		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Low	Contrast	10.660	1	10.660	18.839	0.000
	Error	115.435	204	0.566		
High	Contrast	33.380	1	33.380	58.991	0.000
	Error	115.435	204	0.566		

Each F tests the simple effects of Standard of Living Change within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Table 5.46. Summary of Hypotheses, Results and Key Findings (Studies 1, 2 and 3)

STUDY 1 (Field Survey)			
Hypotheses	**Support**	**Result**	**Key Finding**
H1: Family endorsement prior to venture start is positively associated with higher levels of family emotional support for an entrepreneur after venture creation.	Supported	$\beta = 0.678$, $p < 0.001$	Pre-venture endorsement has a large effect on follow-on emotional support (Cohen, Cohen, West, & Aiken, 2013).
H2: Entrepreneurial work hours moderate the relationship between family endorsement and family emotional support, such that increasing work hours weaken the positive relationship between family endorsement and family emotional support.	N.S.[#]	$\beta = 0.001$, $p = 0.748$	
H3: Household standard of living change moderates the relationship between family endorsement and family emotional support, such that a decreased standard of living weakens the positive relationship family endorsement and family emotional support.	N.S.	$\beta = -0.032$, $p = 0.476$	
H4: Family emotional support is negatively related to an entrepreneur's business closure intentions.	N.S.	$\beta = 0.386$, $p = 0.024$	Unexpected positive effect of emotional support on business closure intentions.
H5: Family emotional support is negatively related to an entrepreneur's work tension.	N.S.	$\beta = 0.126$, $p = 0.387$	
H6: Family emotional support partially mediates the relationship between family endorsement and business closure intensions.	Supported	Direct effect of endorsement on closure intentions is not statistically significant $\beta = -0.32$, $p = 0.081$. The indirect effects through emotional support are statistically significant.	Endorsement appears to increase closure intentions in entrepreneurs over the long-term.
H7: Family emotional support partially mediates the relationship between family endorsement and an entrepreneur's work tension	N.S.	The conditional indirect effects of endorsement on work tension at all values of emotional support have confidence intervals that include zero.	
H8: Entrepreneurial work hours moderate the indirect relationship of family emotional support in the relationship between family endorsement and closure intensions. Specifically, the mediated effect weakens as work hours increase.	N.S.	The slopes of the conditional indirect effects do not significantly differ across levels of work hours (+/- 1 SD).	
H9: Household standard of living change moderates the indirect relationship of family emotional support in the relationship between family endorsement and closure intensions. Specifically, the mediated effect strengthens as standard of living increases.	N.S.	The slopes of the conditional indirect effects do not significantly differ across levels of standard of living change (+/- 1 SD).	
Post-hoc Model	Not Applicable	All paths are significant in the post-hoc model, including the interaction between emotional support and work hours, $\beta = 0.033$, $p = 0.017$. The slopes of the conditional indirect effects are significantly different at mean an +1 SD levels of work tension.	Endorsement has a conditional indirect effect on closure intentions through work tension, which moderates the relationship between emotional support and closure intentions. However, it moves in a counterintuitive direction, and is only significant at mean and +1 SD levels of work tension. That is, higher levels of endorsement lead to higher closure intentions at higher levels of work tension.

N=118 Entrepreneurs
Method = Conditional Process Analysis
# Note: N.S. = Not Supported

Table 5.46. (Continued)

STUDY 2 (Experiment 1)			
Hypotheses	**Support**	**Result**	**Key Finding**
H10: Family endorsement moderates the venture uncertainty - venture roll-out timing relationship. Entrepreneurs are more likely to delay their venture roll-out timing when endorsement is low and uncertainty is high, and less likely to delay their venture roll-out timing when endorsement is high and uncertainty is low.	Partially Supported	Endorsement - $F(1, 150) = 13.189$, $p < .001$. High family endorsement was associated with a mean entry timing score 1.018, 95% CI [0.464, 1.572] units lower than low family endorsement, $p < .001$.	Uncertainty has no statistically significant effect. However, low levels of family endorsement cause aspirant entrepreneurs to indicate a delay in the timing of venture start relative to those who receive high family endorsement.
H11: Family endorsement moderates the venture uncertainty - venture roll-out method relationship. Entrepreneurs are less likely to leave their current job and start the venture full-time when endorsement is low and uncertainty is high, and more likely to leave their current job and start the venture full-time when endorsement is high and uncertainty is low.	N.S.	Uncertainty - $F(1, 150) = .046$, $p = .831$ Endorsement - $F(1, 150) = 1.021$, $p = .314$	

N=150 Aspirant Entrepreneurs

Method = Between-Subjects Experiment

Table 5.46. (Continued)

STUDY 3 (Experiment 2)			
Hypotheses	**Support**	**Result**	**Key Finding**
H12: Work hours and standard of living change moderate the negative relationship between family emotional support and business closure intentions. Specifically, the relationship weakens (strengthens) as work hours increase (decrease) and standard of living decreases (increases).	Partially Supported	Emotional support * Standard of living change - $F(1, 204) = 3.964$, $p = .048$	Entrepreneurs express higher closure intentions when their standard of living changes for the worse (negatively), although there is no statistically significant difference across levels of emotional support in this condition. However, when standard of living changes positively, there is a statistically significant difference between low and high levels of emotional support, where low emotional support increases entrepreneurs' closure intentions.
H13: Work hours and standard of living change moderate the negative relationship between family emotional support and the entrepreneur's affective state. Specifically, the relationship strengthens (weakens) as work hours decrease (increase) and standard of living increases (decreases).	Partially Supported	Emotional support * Standard of living change - $F(1, 204) = 4.340$, $p = .038$	Entrepreneurs in this scenario were more emotionally sensitive to a decrease in standard of living in the presence of high emotional support from family. Although, changes in emotional support do not seem to directly influence affective state, they become a factor when standard of living is impacted through business operation.

N=223 Entrepreneurs

Method = Between-Subjects Experiment

FIGURES

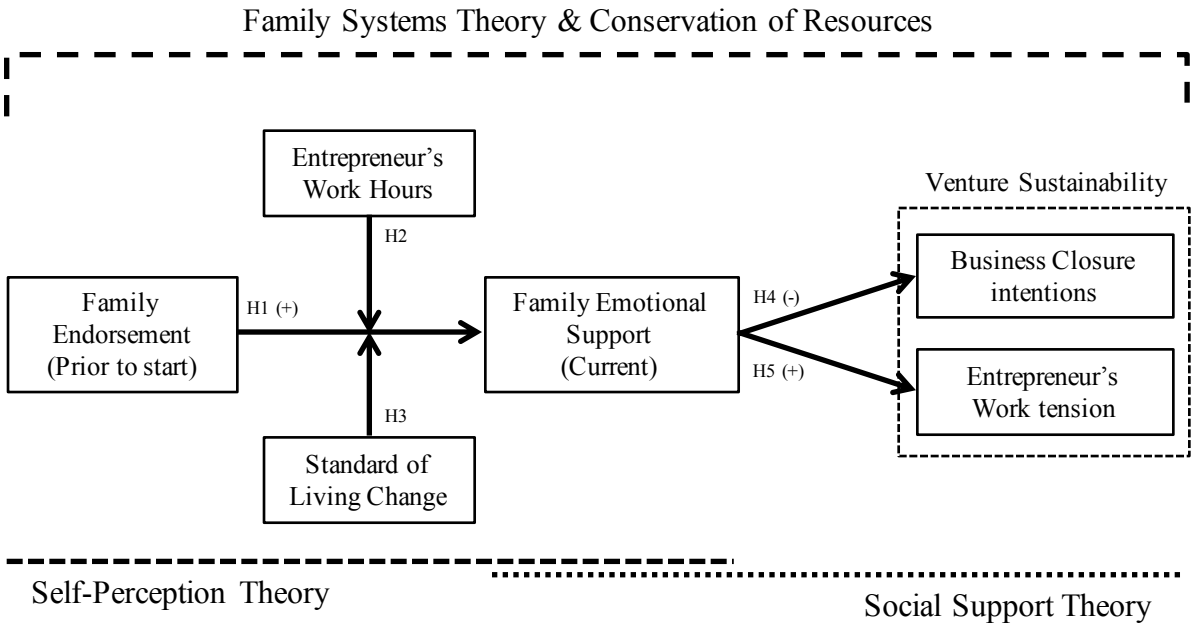


Figure 3.1. Model of Family Endorsement and Venture Sustainability (Study 1)

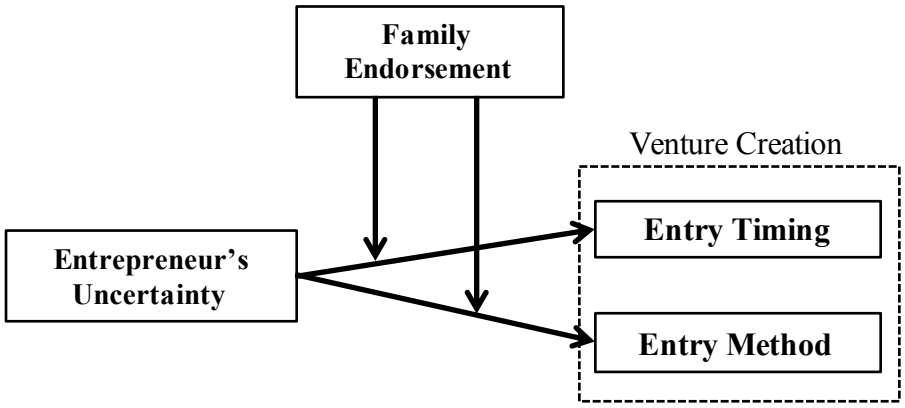


Figure 3.2. Model of Family Endorsement and Venture Creation (Study 2)

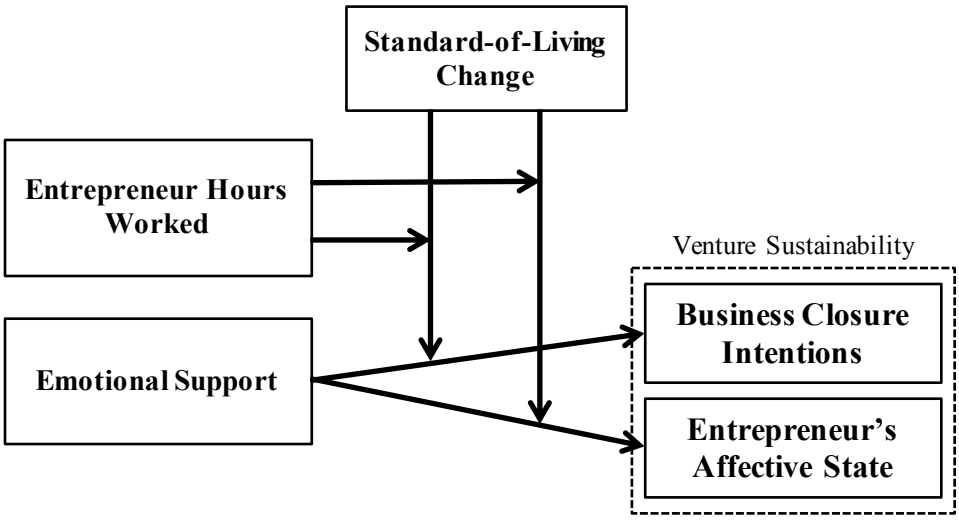


Figure 3.3. Model of Family Support and Venture Sustainability (Study 3)

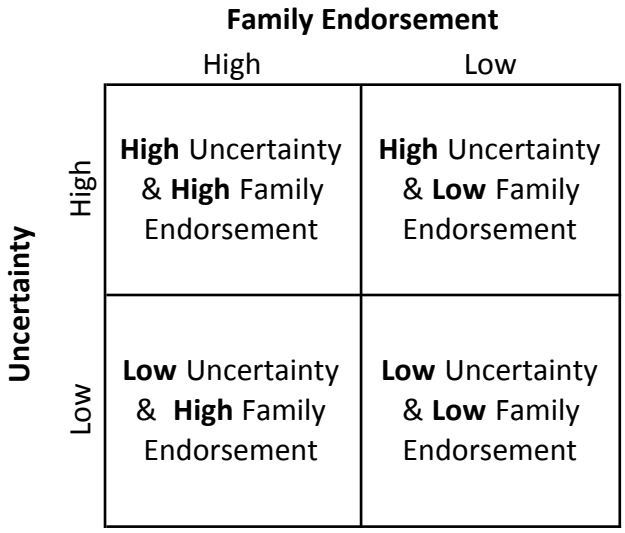


Figure 4.1. 2x2 Factorial Design (Study 2)

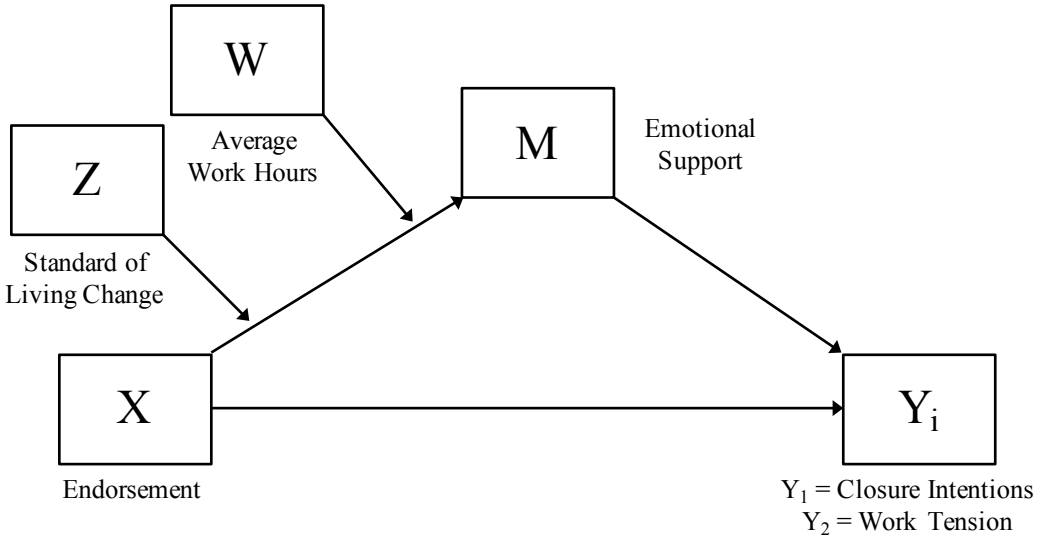


Figure 5.1. Models 1 and 2 Conceptual Model (Study 1)

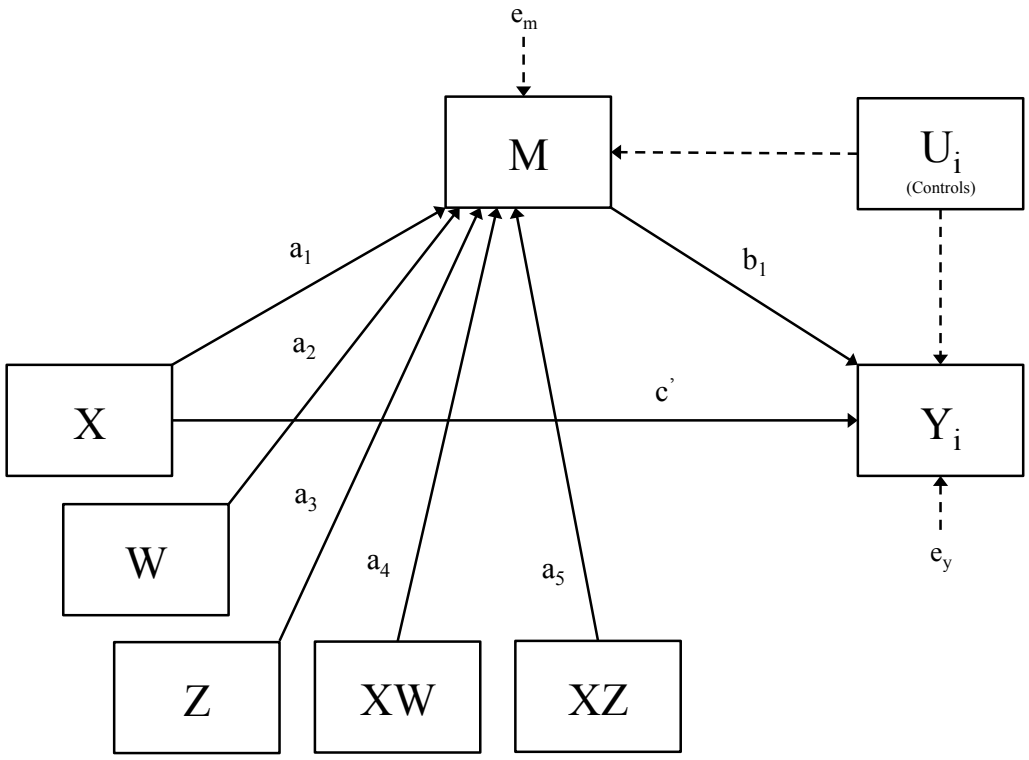


Figure 5.2. Models 1 and 2 Statistical Model (Study 1)

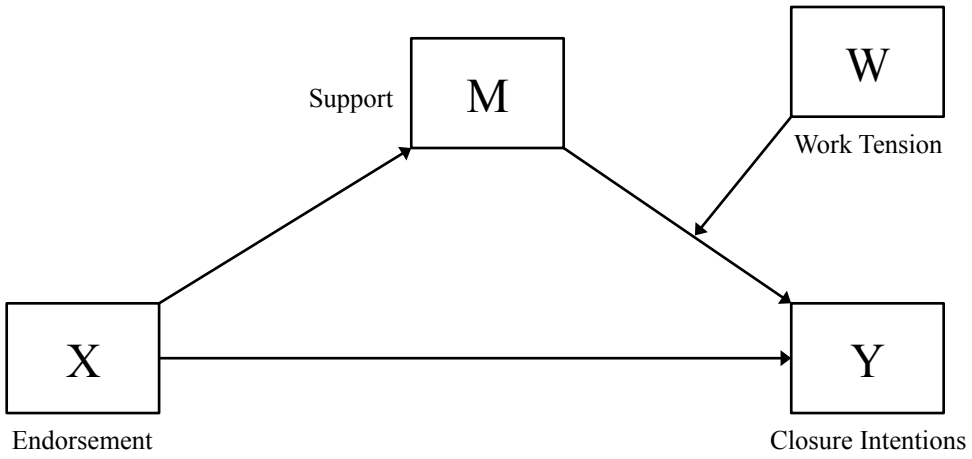


Figure 5.3. Model 3 (Post-hoc) Conceptual Model (Study 1)

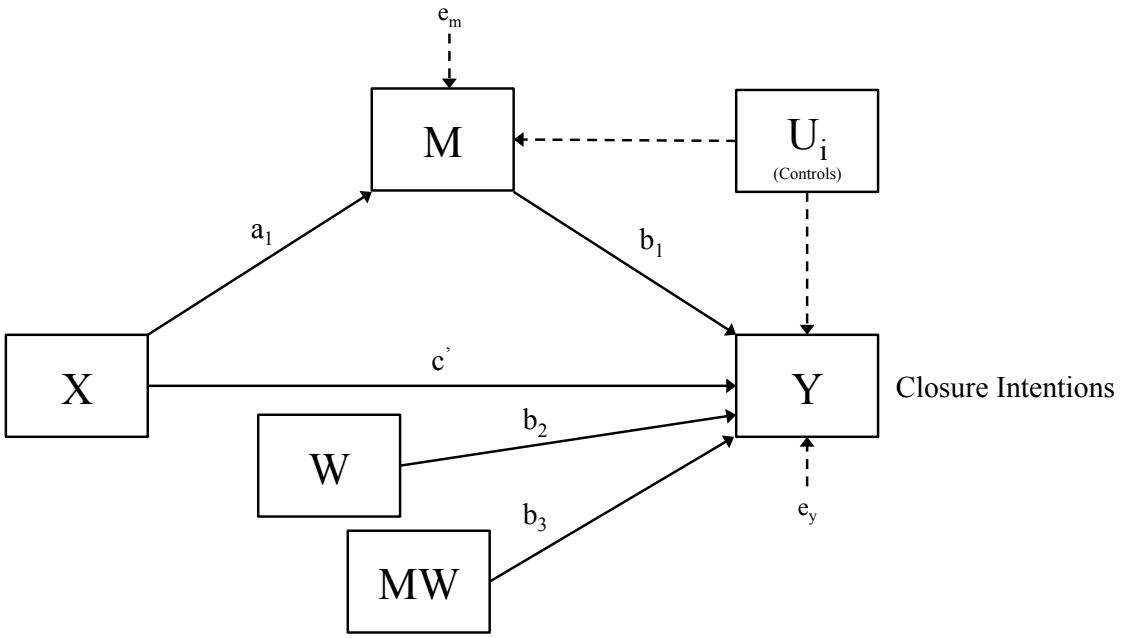
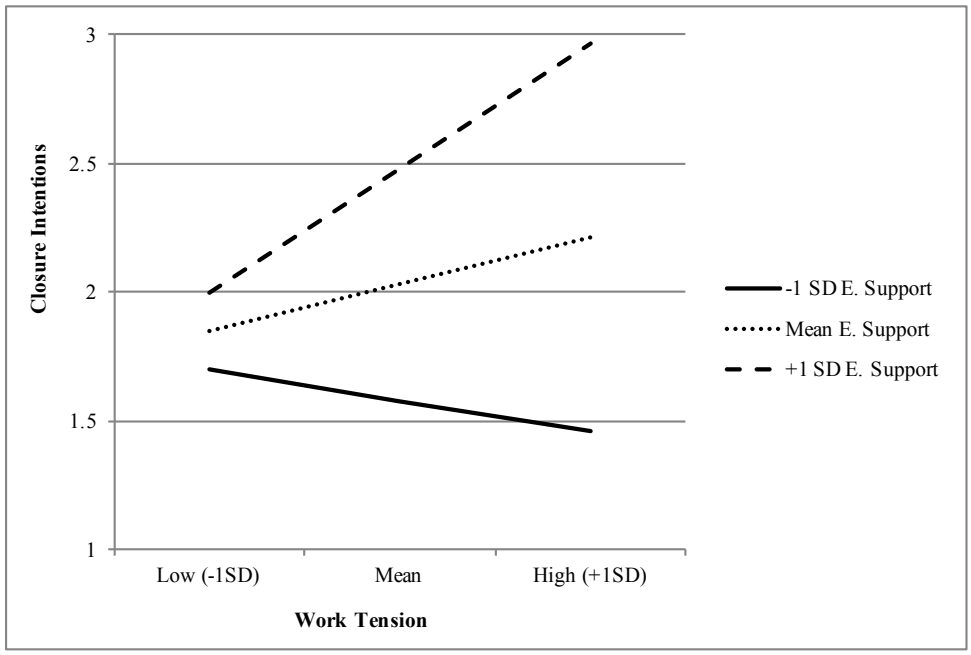
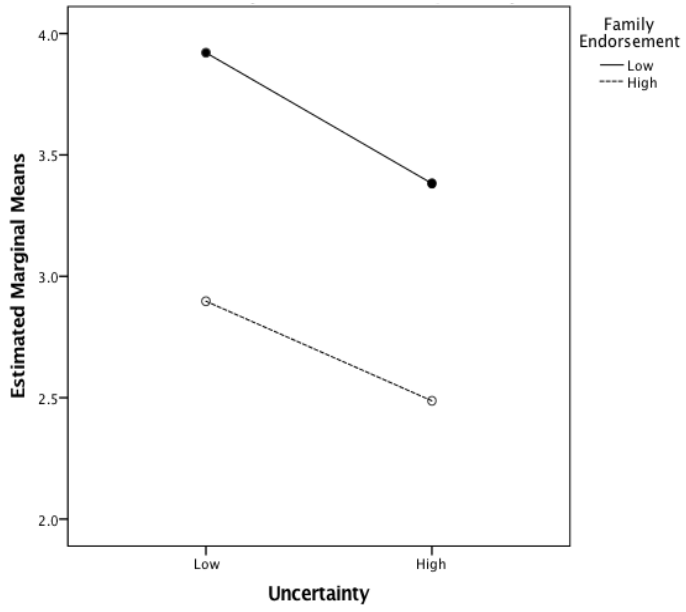


Figure 5.4. Model 3 (Post-hoc) Statistical Model (Study 1)



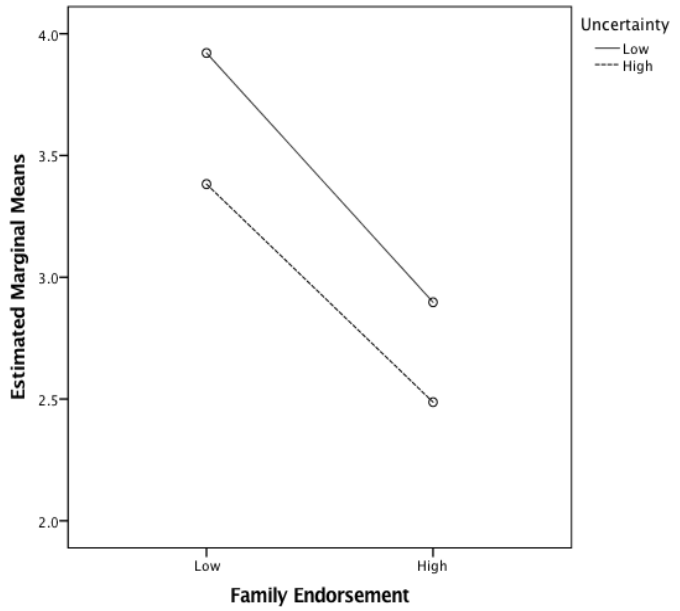
[a] +1 SD = one standard deviation above the mean; -1 SD = one standard deviation below the mean

Figure 5.5. Closure Intentions Predicted By Emotional Support Moderated By Work Tension (Study 1)



[a] Y-axis 2.0 = 3-4 months; 3.0 = 5-6 months; 4.0 = 7-8 months

Figure 5.6. Estimated Marginal Means of Entry Timing - Uncertainty (Study 2)



[a] Y-axis 2.0 = 3-4 months; 3.0 = 5-6 months; 4.0 = 7-8 months

Figure 5.7. Estimated Marginal Means of Entry Timing - Family Endorsement (Study 2)

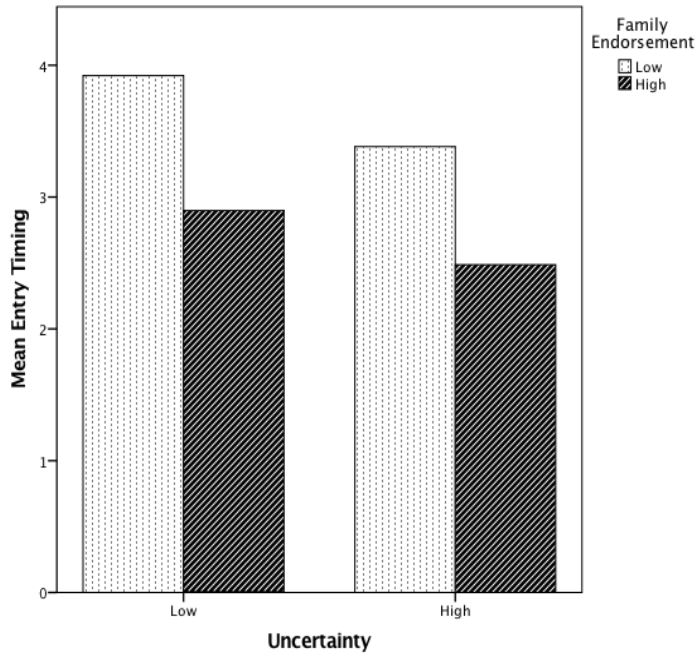


Figure 5.8. Clustered Bar Chart Uncertainty on Entry Timing (Study 2)

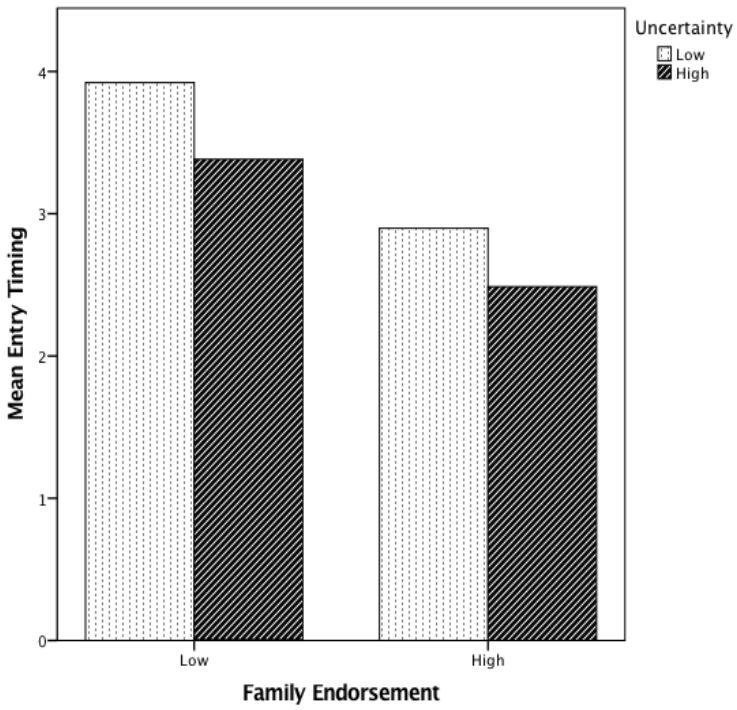
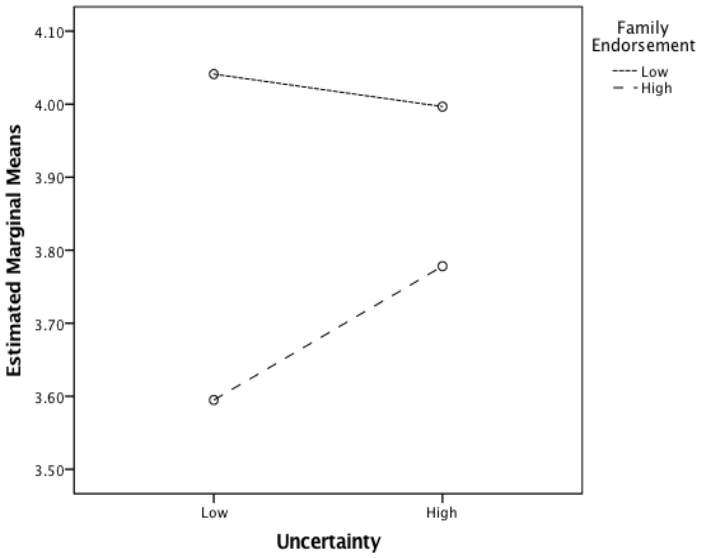
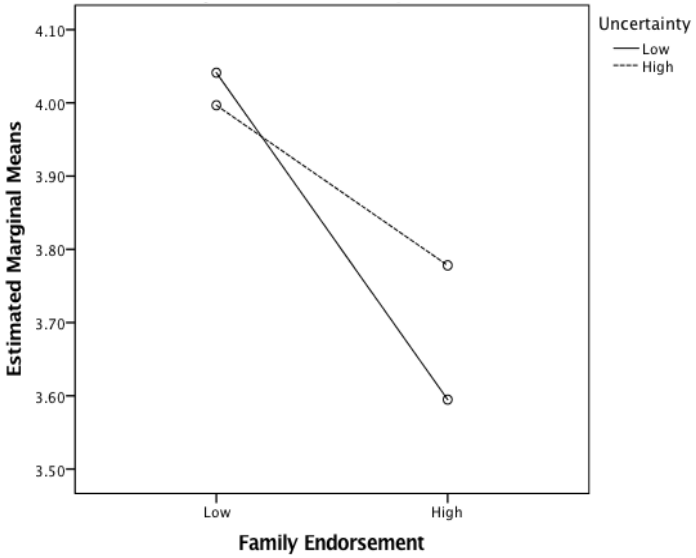


Figure 5.9. Clustered Bar Chart Family Endorsement on Entry Timing (Study 2)



Covariates appearing in the model are evaluated at the following values: Risk Averse = 3.3095, Married = .75, Family Satisfaction = 3.8500, Necessity Entrepreneur = .25, Positive Affect = 3.8400, Negative Affect = 1.5107

Figure 5.10. Interaction Uncertainty * Family Endorsement on Entry Method (Study 2)



Covariates appearing in the model are evaluated at the following values: Risk Averse = 3.3095, Married = .75, Family Satisfaction = 3.8500, Necessity Entrepreneur = .25, Positive Affect = 3.8400, Negative Affect = 1.5107

Figure 5.11. Interaction Family Endorsement * Uncertainty on Entry Method (Study 2)

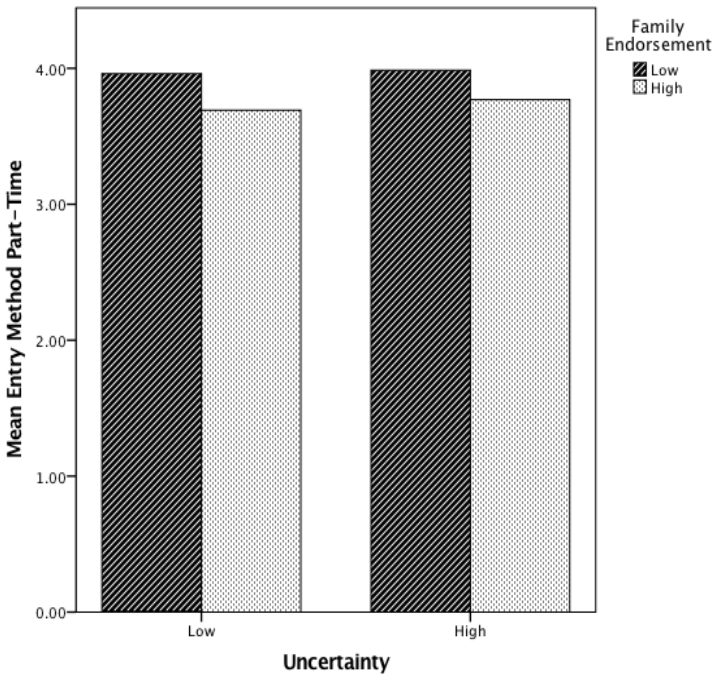


Figure 5.12. Clustered Bar Chart Uncertainty on Entry Method (Study 2)

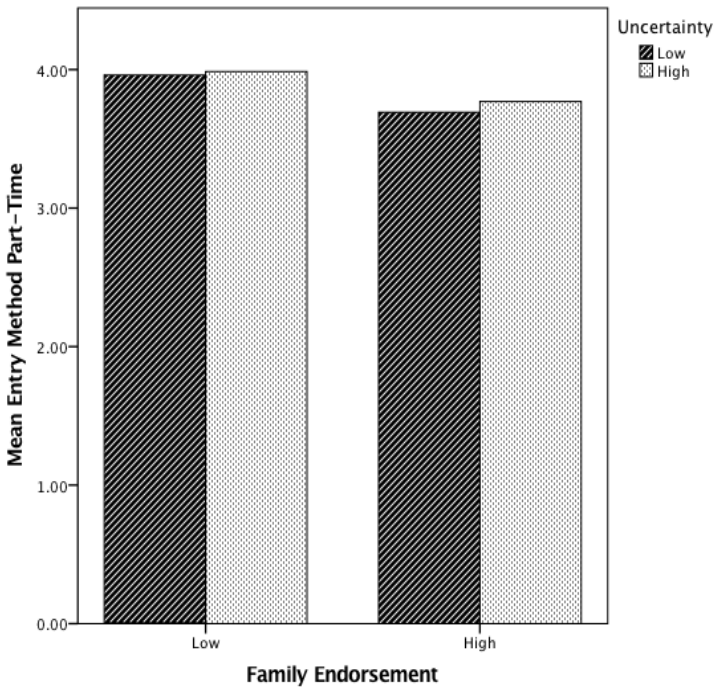


Figure 5.13. Clustered Bar Chart Family Endorsement on Entry Method (Study 2)

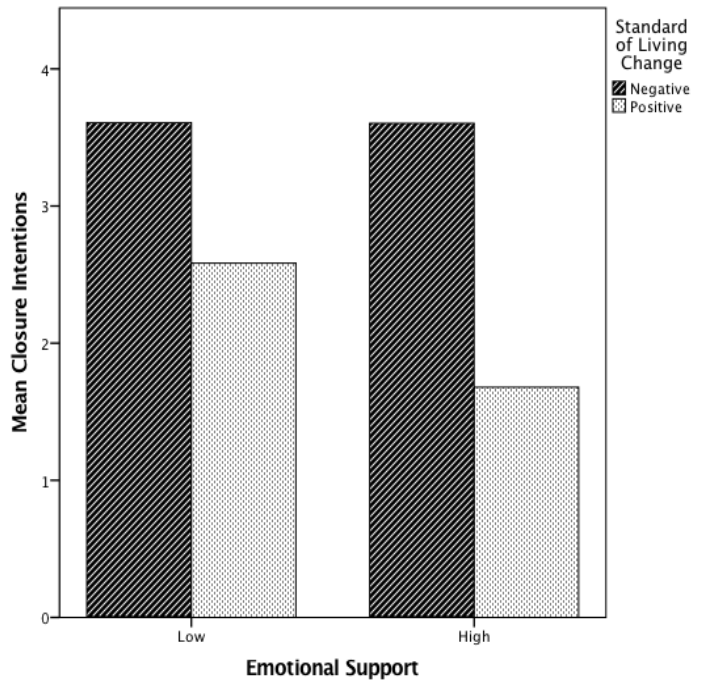


Figure 5.14. Clustered Bar Chart Emotional Support on Closure Intentions (Study 3)

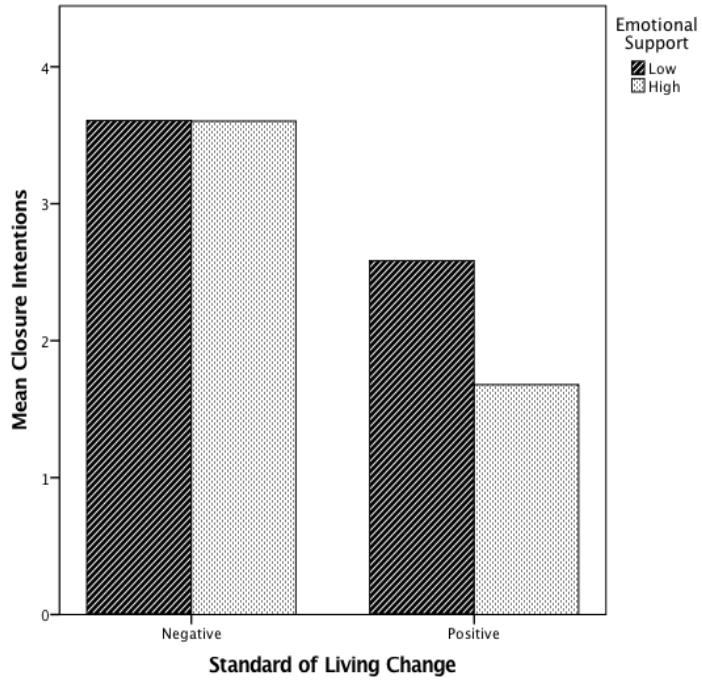


Figure 5.15. Clustered Bar Chart Standard of Living Change on Closure Intentions (Study 3)

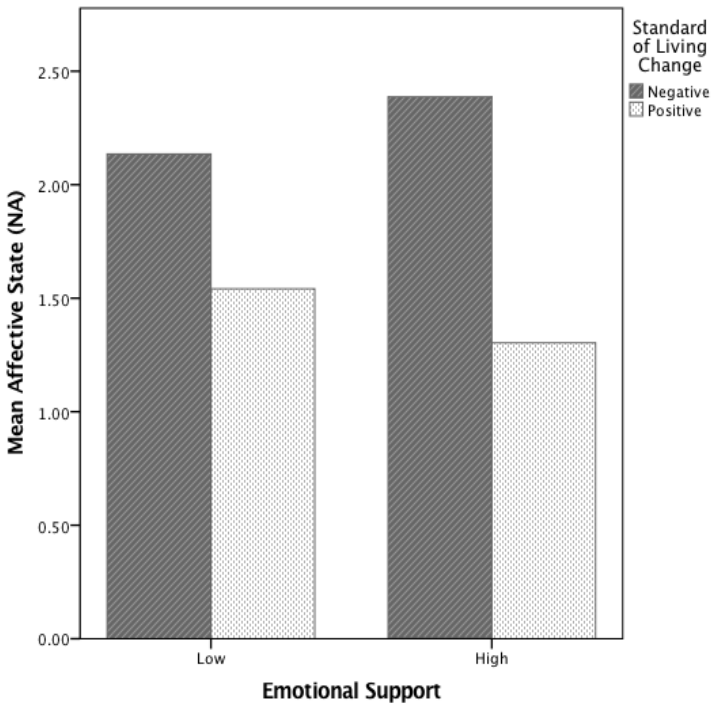


Figure 5.16. Clustered Bar Chart Emotional Support on Affective State (Study 3)

VITA

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Daniel entered the program in Fall of 2014, and his main research interests include identity and family influences on the entrepreneurial process. Before entering the program, he obtained a M.B.A. from the University of Alaska, Anchorage (2009) and an B.S. in Management from the U.S. Air Force Academy (2002).

During Daniel's time at the University of Tennessee, his research was published in *Journal of Business Venturing*, and presented at multiple international, national and regional conferences, including the Academy of Management, Strategic Management Society, and Southern Management Association. The University of Tennessee conferred his Doctor of Philosophy degree in August 2017. Daniel's next assignment is at the Military Surface Deployment and Distribution Center, Scott Air Force Base, IL.